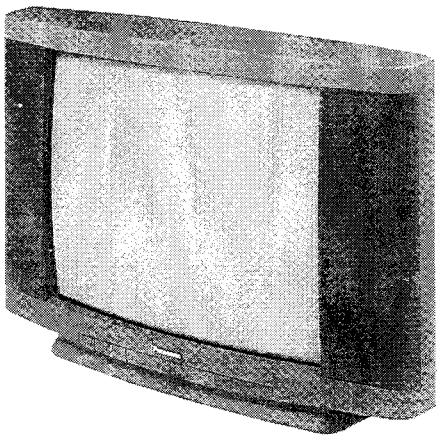
ORDER NO. SM–92022

Service Manual



Colour Television
TX–28W3C
TX–25W3C
EURO–1 Chassis

Specifications

(Information in brackets refer to TX–25W3C)

Power Source :	230 V AC, 50Hz
Power Consumption :	105W
Aerial Impedance :	75Ω unbalanced, Coaxial Type
Receiving System :	PAL B,G SECAM B,G D,K
Receiving Channels :	VHF E2 – E12 VHF H1 – H2 (ITALY) VHF A – H (ITALY) VHF R1 – R12 UHF E21 – E69 CATV (S01 – S05) CATV S1 – S10 (M1 – M10) CATV S11 – S20 (U1 – U10) CATV S21 – S41 (HYPERBAND)
Intermediate Frequency :	Video 38.9 MHz Sound 33.4 MHz Colour 35.47 MHz (PAL) 34.5 MHZ (SECAM) 34.65 MHz (SECAM)

Video / Audio Terminals :

AV1 IN	Video (21 pin) Audio (21 pin) RGB (21 pin)	1 Vp–p 75Ω 500 mV rms 10kΩ
AV1 OUT	Video (21 pin) Audio (21 pin) (100% modulation)	1 Vp–p 75Ω 500 mV rms 1kΩ
AV2 IN	Video (21 pin) Audio (21 pin) S–Video IN (21 pin)	1 Vp–p 75Ω 500 mV rms 10 kΩ Y : 1 Vp–p 75Ω C : 0.3 Vp–p 75Ω
AV2 OUT	Video (21 pin) Audio (21 pin) (100% modulation) Selectable output (21 pin)	1 Vp–p 75Ω 500 mV rms 1kΩ
AV3 IN	S–Video IN (4–pin) Audio (RCA x 2)	Y : 1 Vp–p 75Ω C : 0.3 Vp–p 75Ω 500 mV rms 10kΩ
AV4 IN	S–Video IN (4–pin) Audio (RCA x 2) Video (RCA x 1)	Y : 1 Vp–p 75Ω C : 0.3 Vp–p 75Ω 500 mV rms 10kΩ 1 Vp–p 75Ω

High Voltage :	28.0 kV at zero beam current
Picture Tube : **Visible screen size:**	70 cm (63cm) FST 110° 66 cm (59cm) FST 110°
Audio Output :	
Internal Speaker	2 x 20 W (Music Power) 4 Ω Impedance
External Speaker	2 x 20 W (Music Power) 4 – 8 Ω Impedance
Speakers	2 x 16cm x 8cm Oval 2 x 5cm round
Headphones	1 x 8 Ω Impedance
Accessories supplied :	Remote Control R6 (UM3) Battery
Dimensions :	Height : 557mm (513mm) Width : 823mm (765mm) Depth : 468mm (448mm)
Net Weight	37kg (31kg)

Specifications are subject to change without notice.
Weight and dimensions shown are approximate.

Technische Daten

(Werte in klammern gelten nur fur TX–25W3C)

Netzpannung :	230 V AC, 50Hz
Leistungsaufnahme :	105W
Antennenimpedanz :	75Ω asymmetrisch, Koaxial– Typ
Empfangssystem :	PAL B,G SECAM B,G D,K
Empfangsbereiche :	VHF E2 – E12 VHF H1 – H2 (ITALY) VHF A – H (ITALY) VHF R1 – R12 UHF E21 – E69 CATV (S01 – S05) CATV S1 – S10 (M1 – M10) CATV S11 – S20 (U1 – U10) CATV S21 – S41 (HYPERBAND)
Zwischenfrequenz :	Bilde 38.9 MHz Ton 33.4 MHz Farbe 35.47 MHz (PAL) 34.5 MHz (SECAM) 34.65 MHz (SECAM)

Video / Audio Anschlüsse :

AV1 EINGANG	Video (21 pin) Audio (21 pin) RGB (21 pin)	1 Vp–p 75Ω 500 mV rms10kΩ
AV1 AUSGANG	Video (21 pin) Audio (21 pin) (100% modulation)	1 Vp–p 75Ω 500 mV rms1kΩ
AV2 EINGANG	Video (21 pin) Audio (21 pin) S–Video IN (21 pin)	1 Vp–p 75Ω 500 mV rms 10 kΩ Y : 1 Vp–p 75Ω C : 0.3 Vp–p 75Ω
AV2 AUSGANG	Video (21 pin) Audio (21 pin) (100% modulation) Selectable output (21 pin)	1 Vp–p 75Ω 500 mV rms1kΩ
AV3 EINGANG	S–Video IN (4–pin) Audio (RCA x 2)	Y : 1 Vp–p 75Ω C : 0.3 Vp–p 75Ω 500 mV rms10kΩ
AV4 EINGANG	S–Video IN (4–pin) Audio (RCA x 2) Video (RCA x 1)	Y : 1 Vp–p 75Ω C : 0.3 Vp–p 75Ω 500 mV rms10kΩ 1 Vp–p 75Ω

Hochspannung :	28.0kV bei Nullstrahlstom
Bildrohre : **Visuelle Diagonale :**	70 cm (63 cm) 110° Ablenkung 66 cm (59 cm) 110° Ablenkung
Ton Ausgangsleistung :	
Einbaulautsprecher	2 x 20W (Musikleistung) 4 Ω Impedanz
Zusatz–Lautsprecherbzen	2 x 20W (Musikleistung) 4 – 8 Ω Impedanz
Lautsprecher	2 x 16 cm x 8 cm Oval 2 x 5 cm Rund
Kopfhörer	1 x 8 Ω Impedanz
Mitgel. Zubehör	Fernbedienung R6 (UM3) Batterien
Abmessungen :	Höhe : 557mm (513mm) Breite : 823mm (765mm) Tiefe : 468mm (448mm)
Gewicht :	37 kg (31kg)

Änderungen der technischen Daten vorbehalten.
Gewichte und Abmessungen sind Näherungsangaben.

Panasonic

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SAFETY PRECAUTIONS

General Guide Lines

1. It is advisable to insert an isolation transformer in the AC supply before servicing a hot chassis.
2. When servicing, observe the original lead dress in the high voltage circuits. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
3. After servicing, see that all the protective devices such as insulation barriers, insulation papers, shields and isolation R–C combinations are correctly installed.
4. When the receiver is not being used for a long period of time, unplug the power cord from the AC outlet.
5. Potentials as high as 28.0 kV are present when this receiver is in operation. Operation of the receiver without the rear cover involves the danger of a shock hazard from the receiver power supply. Servicing should not be attempted by anyone who is not familiar with the precautions necessary when working on high voltage equipment. Always discharge the anode of the picture to the chassis before handling the tube.
6. After servicing make the following leakage current checks to prevent the customer from being exposed to shock hazards.

LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs of the plug.
2. Turn on the receiver's power switch.
3. Measure the resistance value with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the receiver, such as screw heads, aerials , connectors, control shafts etc. When the exposed metallic part has a return path to the chassis the reading should be between 4M ohm and 20M ohm. When the exposed metal does not have a return path to the chassis the reading must be infinite.

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SICHERHEITSVORKEHRUNGEN

Allgemeine Richtlinien

1. Es ist empfehlenswert einen Trenntransformator in die Stromversorgung zu schalten, bevor Reparaturen an einem Gerät vorgenommen werden, dessen Chassis unter Spannung steht.
2. Bei der Durchführung von Servicearbeiten dürfen die ursprünglichen Kabelanschlüsse nicht vertauscht werden. Dies gilt insbesondere für die Anschlüsse im Hochspannungsteil. Hat sich ein Kurzschluß ereignet, dann sind alle Teile, an denen Spuren von Überhitzung sichtbar sind, auszuwechseln.
3. Nach Beenden der Servicearbeiten ist sicherzustellen, daß alle Sicherheitsvorrichtungen, wie Isolationsstege, Isolationspapiere, Abschirmungen und Isolations–R–C–Glieder wieder richtig eingesetzt sind.
4. Wenn der Fernseher während längerer Zeit nicht in Betrieb gesetzt wird, sollte der Netzstecker aus der Netzsteckdose gezogen werden.
5. Im Betrieb sind Spannungen bis zu 28.0kV in diesem Gerät vorhanden. Die Inbetriebnahme des Fernsehers ohne aufgesetzte Rückwand bringt die Gefahr eines elektrischen Schlages von der Fernseher – Stromversorgung mit sich. Servicearbeiten solten daher auch nie durch Personen versucht werden, die nicht in vollem. Umfang mit den Sicherheitsvorkehrungen beim Umgang mit Hochspannungsgeräten vertraut sind. Vor der Handhabung mit der Bildröhre ist die Anode der Bildrohre immer an dem Empfängerchassis zu entladen.
6. Nach Beenden der Servicearbeiten sind die folgenden Kriechstrom–Prüfungen durchzuführen, um den Kunden vor der Gefahr eines elektrischen Schlages zu schützen.

MESSUNG DES ISOLATIONSWIDERSTANDES IM ABGESCHALTETEN ZUSTAND

1. Den Netsztecker aus der Netzsteckdose ziehen und die beiden Steckerstifte kurzschließen.
2. Den Geräteschalter des Fernsehgerätes einschalten.
3. Mit einem Ohmmeter den Widerstandswert zwischen dem überbrückten Netzkabelstecker und jedem zugänglichen Metallteil am Gehäuse des Fernsehgerätes, wie Schraubenköpfe, Antennen, Achsen der Regler, Griffassungen usw. messen. Wenn ein zugängliches Metallteil keine Rückleitung zum Chassis hat, Muß die Anzeige unendlich betrgen.

LEAKAGE CURRENT HOT CHECK

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 2k ohm 10W resistor in series with an exposed metallic part on the receiver and an earth such as a water pipe.
3. Use an AC voltmeter with high impedance to measure the potential across the resistor.
4. Check each exposed Metallic part and check the voltage at each point.
5. Reverse the AC plug at the outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 1.4 Vrms. In case a measurement is outside the limits specified, there is a possibility of a shock hazard, and the receiver should be repaired and rechecked before it is returned to the customer.

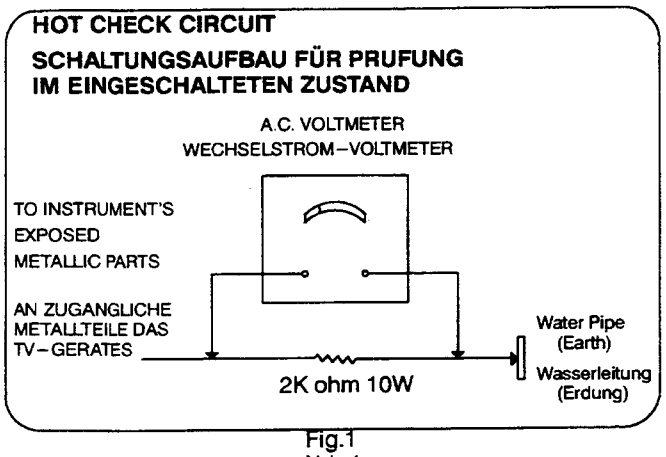


Fig.1
Abb.1

X-RADIATION WARNING

1. The potential sources of X-Radiation in TV sets are the high voltage section and the picture tube.
2. When using a picture tube test jig for service ensure that the jig is capable of handling 28.0 kV without causing X-Radiation.

NOTE : It is important to use an accurate periodically calibrated high voltage meter

1. Set the brightness to minimum.
2. Measure the high voltage. The meter should indicate 28.0 kV +/- 1.5 kV, if the meter indication is out of tolerance, immediate service and correction is required to prevent the possibility of premature component failure.
3. To prevent any X-Radiation possibility, it is essential to use the specified tube.

MESSUNG DES KRIECHSTROMS IM EINGESCHALTETEN ZUSTAND

1. Den Netzstecker direkt in eine Netsteckdose stecken. Für diese Messung keinen Trenntransformator verwenden.
2. Einen 2k Ω / 10W-Widerstand in Serie mit einem von außen zugänglichen Metallteil am Fernsehgerät und einer guten, Erdung z.B Wasserleitung, anschließen.
3. Ein Wechselstrom-Voltmeter mit einem Meßbereich von 1000 Ohm.Volt oder größer verwenden, um die Spannung über den Widerstand zu messen.
4. Jedes zugängliche Metallteil prüfen, und an jedem Punkt dies Spannung messen.
5. Den Netztecker umgekehrt in die Steckdose stecken und jede der obigen Messungen wiederholen.
6. Die Spannung darf an keinem der Punkte 1.4V eff. überschreiten. Wird dieser Wert nicht eingehalten, besteht die Gefar eines elektrischen Schlages, und das Fernsehgerät sollte daher repariert und nachgeprüft werden, bevor es an den Kunden zurückgegeben wird.

RÖNTGENSTRAHLUNG ACHTUNG :

1. Potentielle Quellen von Röntgenstrahlung in Fernsehgeräten sind das Hochspannungsteil und die Bildröhre.
2. Bei Verwendung eines Bildröhren-Prüfgerätes für den Service ist sicherzustellen, daß es für die Belastung von 28.0 kV geeignet ist, ohne daß eine Röntgenstrahlung verursacht wird.

ANMERKUNG : Es ist wichtig, daß ein präzises, regelmäßig geprüftes Voltmeter verwendet wird.

1. Helligkeit auf Minimum stellen.
2. Die Hochspannung messen. Die Anzeige des Instrumentes sollte 28.0 (+ /- 1.5) betragen. Falls die Anziege diese Toleranzgrenzen überschreitet, ist die sofortige Behebung nötig, um die Möglichkeit vorzeitigen Komponentenausfalls zu verhüten.
3. Um die Möglichkeit von Röntgenstrahlung zu begrenzen, ist es wichtig, daß nur die vorgeschriebene Bildröhre verwendet wird.

Location Of Controls

Lage der Einstellregler

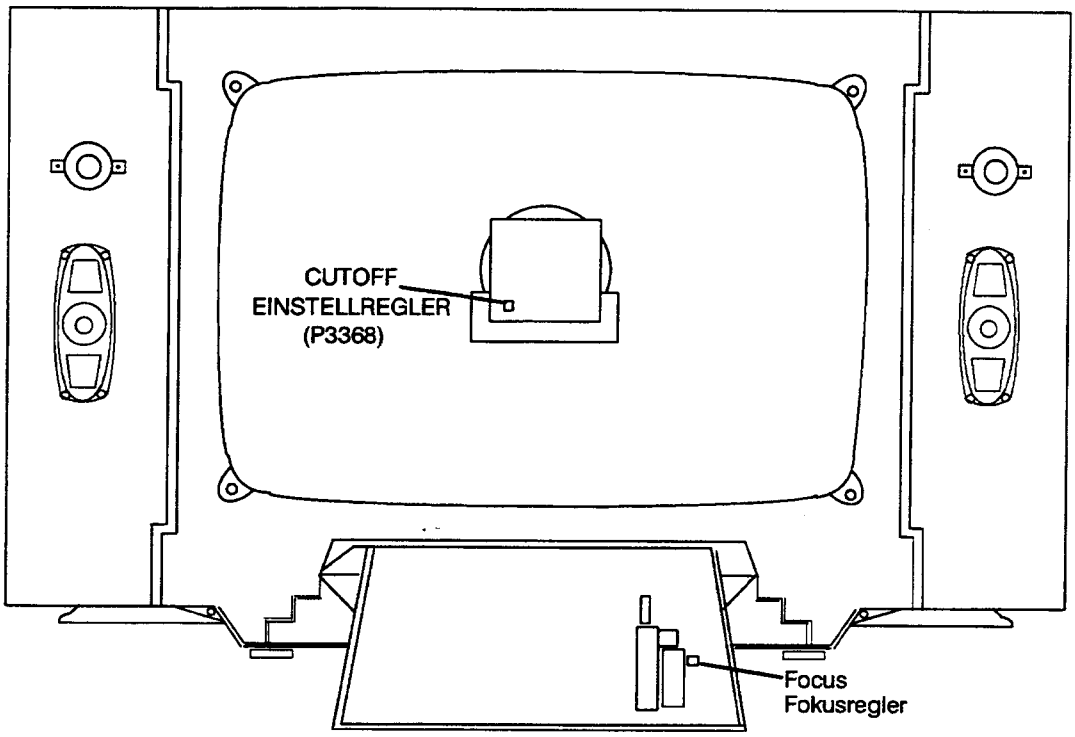


Fig.2
Abb.2

SERVICE HINTS

How to remove the rear cover

1. Remove the 3 screws (A) as shown in Fig.3.
2. Insert a flat blade screwdriver into the slot of each rear cover fixing clip and release the 7 rear cover fixing clips as shown in Fig.4.

SERVICE HINWEISE

Entfernien Der Geräterückwand

1. Die 3 Schrauben (A) entfernen, siehe Abb.3.
2. Mit einem schmalen, flachen Schraubendreher die 7 Klammen der Rückwand öffnen, siehe Abb.4.

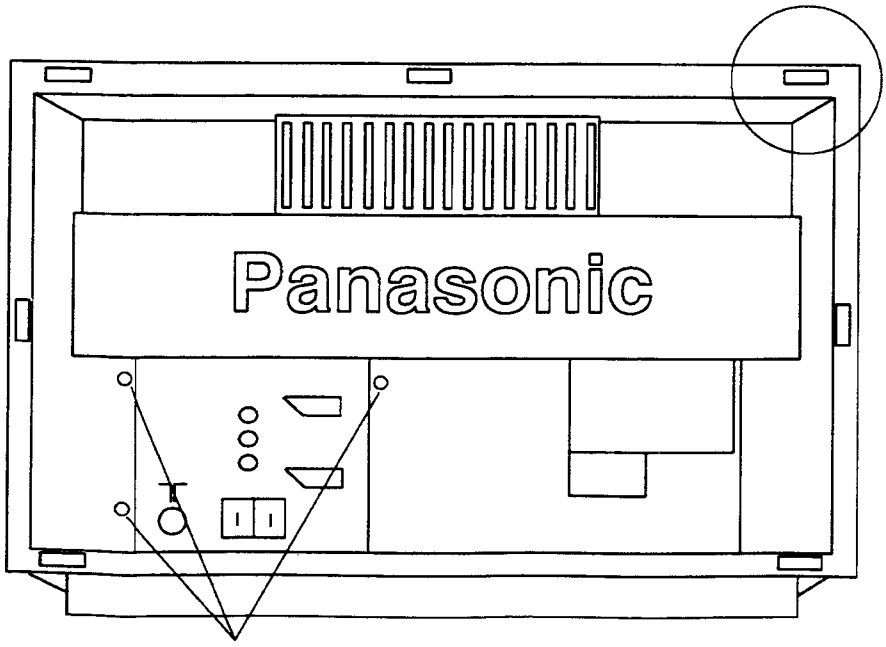


Fig.3
Abb.3

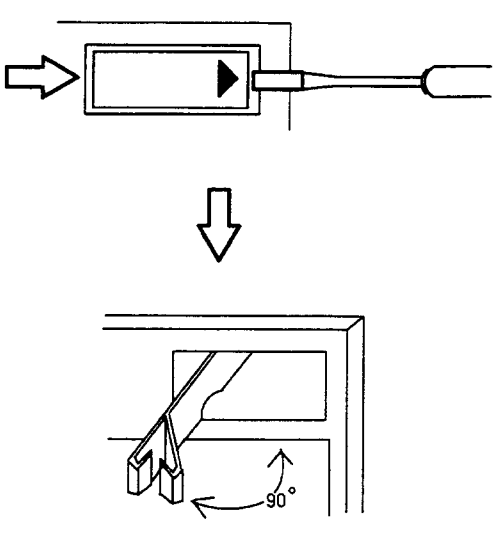


Fig.4
Abb.4

HOW TO MOVE THE CHASSIS INTO THE SERVICE POSITION

1. Hold and lift the rear of the E– PCB chassis as shown in fig.5. and gently pull the chassis toward you.
2. Release the respective wiring clips and turn the chassis through 90°, clockwise, as shown in fig.6.
3. Clip (D) of the chassis bracket onto the support bracket as shown in fig.7.
4. After servicing ensure all wiring is returned to its original position before returning the receiver to the customer.

GERÄTECHASSIS IN REPARATURSTELLUNG BRINGEN

1. Die Leiterplatts E wie in Fig.5 gezeigt hinten leicht anheben und vorsichtig nach hinten aus dem Gerät herausziehen.
2. Die Kabelschellen lösen und wie in Fig.6 gezeigt das Chassis im Uhrzeigersinn um 90° schwenken.
3. Die Befestigungsleiste D des Geräterahmens wie in Fig.7 gezeigt in die seitliche Halterung einhängen.
4. Nach erfolgter Reparatur/Einstellung müssen die Leitungen wieder in ihre ursprüngliche Lage gebracht werden, bevor das FS–Gerät an den Kunden Übergeben wird.

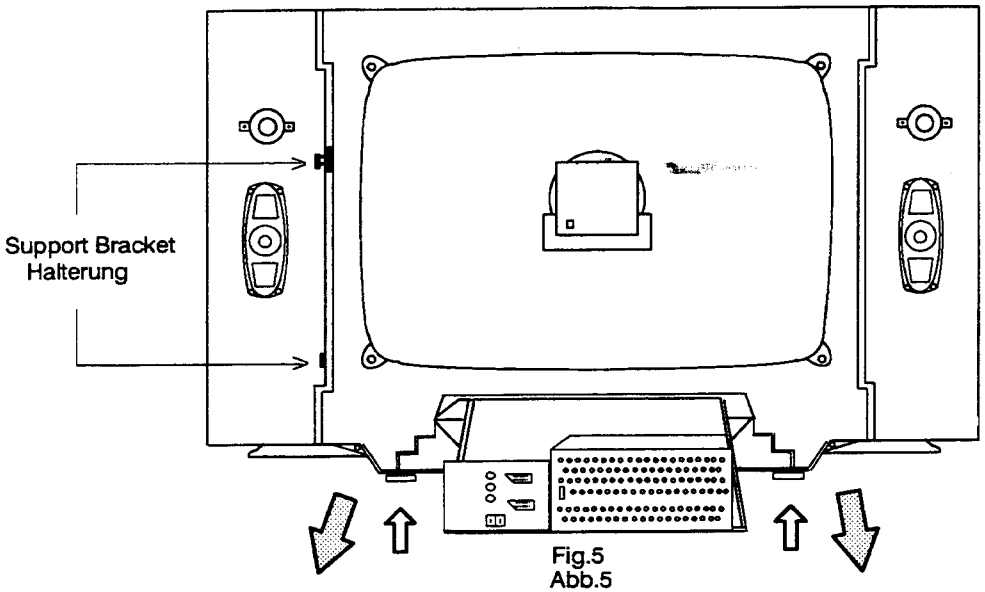


Fig.5
Abb.5

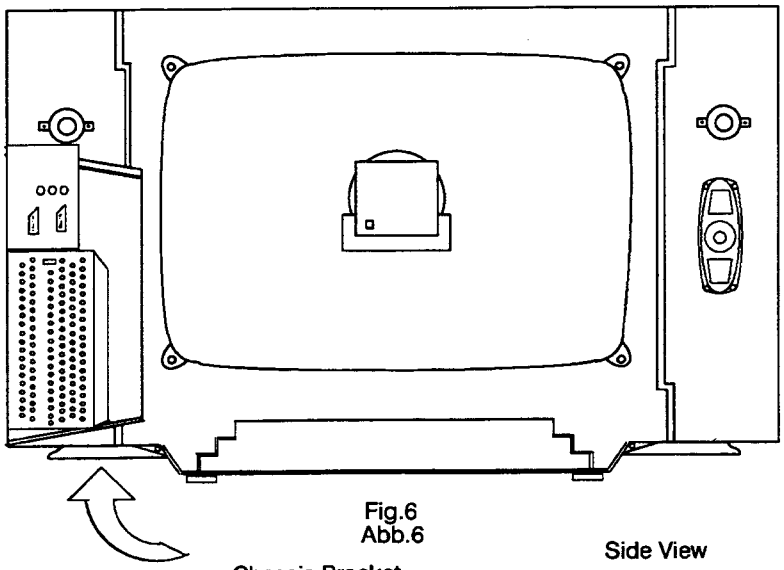


Fig.6
Abb.6

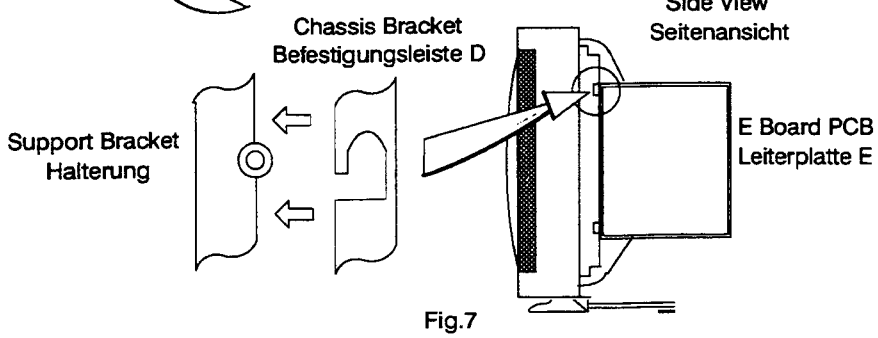


Fig.7
Abb.7

HOW TO MOVE THE CONTROL PANEL, L AND P PCB BOARDS

1. Place the E board into the service position as shown on page 5.
2. Remove the three screws (E) (Fig.8) from the front of the chassis.
3. Lift the two plastic clips (F) (Fig.9) and pull the chassis horizontally outwards, making sure no leads are stressed.
4. After servicing ensure all wiring is returned to its original position before returning the receiver to the customer.

AUS– UND EINBAUEN DES BEDIENFELDS SOWIE DER LEITERPLATTEN L UND P

1. Die Leiterplatte E wie auf Seite 5 gezeigt in Reparaturstellung bringen.
2. Die drei Schrauben E (Fig.8) vorne am Gerätechassis entfernen.
3. Die beiden Plastikclips F (Fig.9) hochdrücken und das Chassis nach vorne herausziehen; darauf achten, da die Kabel keiner Zugbelastung ausgesetzt werden.
4. Nach erfolgter Reparatur/Einstellung müssen sämtliche Kabel wieder in ihre ursprüngliche Lage gebracht werden, bevor das FS–Gerät an den Kunden Übergeben wird.

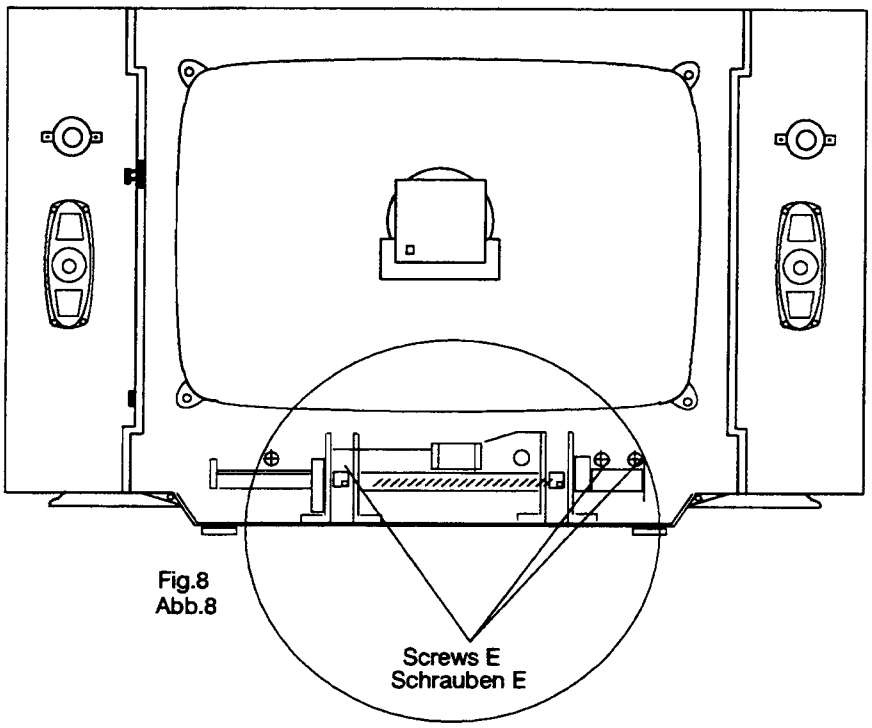


Fig.8
Abb.8

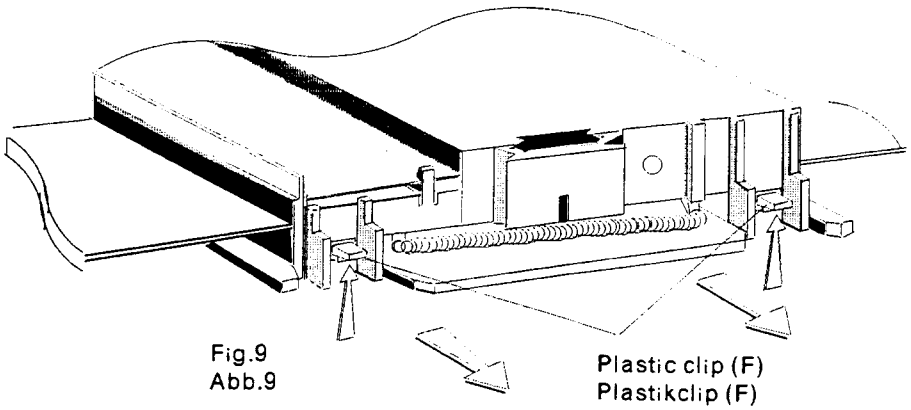


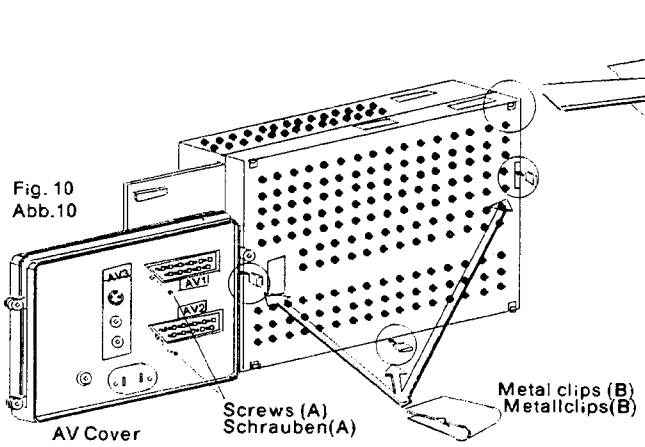
Fig.9
Abb.9

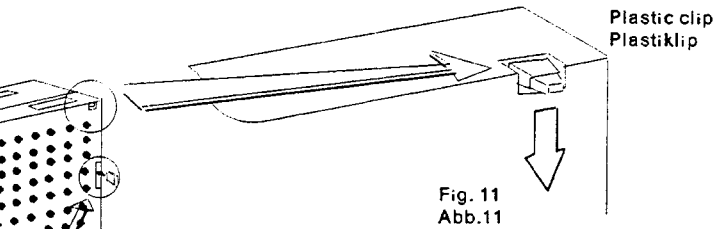
Service position for the A–Board

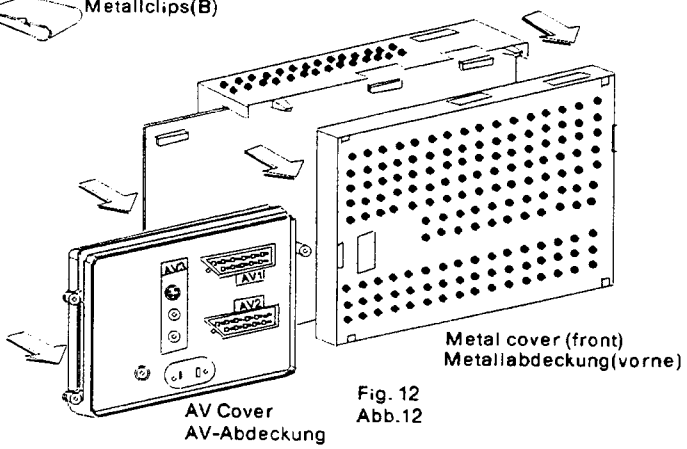
1. Remove the A–board from the main chassis (E–board), ensuring all leads are disconnected.
2. Remove the two screws (A) (Fig.10) from the plastic AV cover and unclip the AV cover from the A–board.
3. Remove the three metal clips (B) (Fig.10) from the metal cover.
4. Unclip the plastic clips at each corner of the front metal cover (fig.11) and remove from the A–board (fig.12). Do the same for the rear metal cover.
5. Fit the 6 extension leads to the A–board making sure that the A–board does not touch the E–board (fig.13).
6. After servicing ensure all wiring is returned to its original position before returning the receiver to the customer.
Note : The extension lead wire kit is supplied as a service kit. (Part number TZS2EK025).

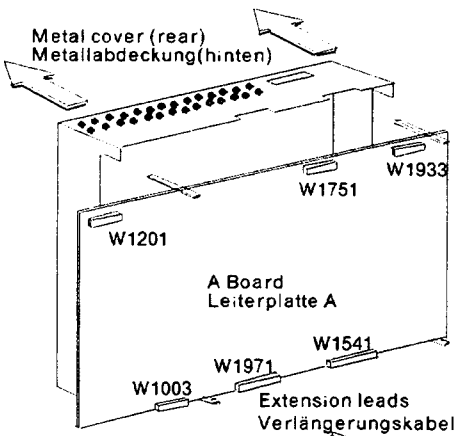
Reparaturstellung Für Leiterplatte A

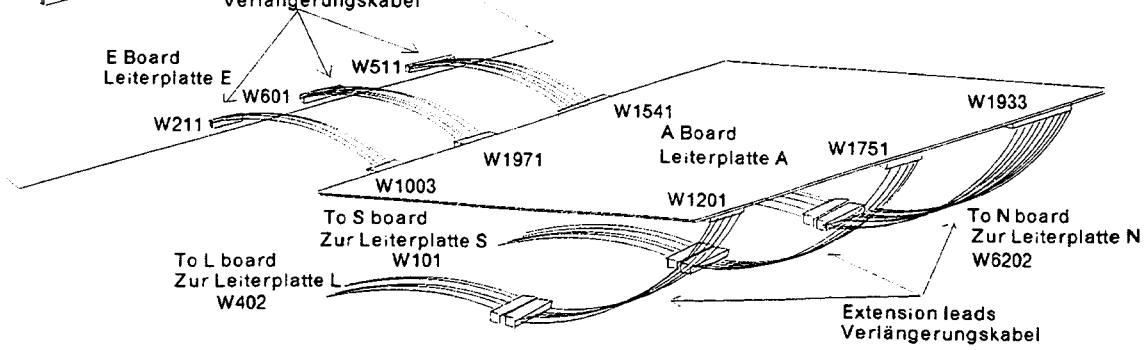
1. Die Leiterplatte A vom Hauptchassis (Leiterplatte E) abnehmen; vorher müssen alle Anschlusskabel abgezogen werden.
2. Die beiden Schrauben A (Fig.10) aus der AV–Abdeckung aus Kunstoff herausschrauben und die AV–Abdeckung durch Ausclipsen von der Leiterplatte A abnehmen.
3. Die drei Metallclips B (Fig.10) von der Metallabdeckung entfernen.
4. Die Plastikclips an den Ecken der vorderen Metallabdeckung (Fig.11) ausclipsen und die Metallabdeckung von der Leiterplatte A abnehmen (Fig.12). Den gleichen Vorgang bei der hinteren Metallabdeckung wiederholen.
5. Die sechs Verlängerungskabel an die Leiterplatte A anschliessen; darauf achten, daß die Leiterplatte A die Platine E nicht berührt (fig.13).
6. Nach erfolter Reparatur/Einstellung müssen sämtliche Leitungen wieder in ihre ursprüngliche Lage gebracht werden, bevor das FS–Gerätan den Kunden Übergeben wird.
Hinweis : Die Verlängerungskabel werden als Reparatur–Teilesatz unter der Bestell–Nr TZS2EK025 geliefert.











Adjustment Procedure

Adjustment	Signal	Conditions	Adjustments	Settings/Special features
Operating voltage	Test pattern	230 V – beam current 0	Adjust P633	Measure Cathode D651 so a Voltmeter shows +155V
Focus	Test pattern		Focus at line transformer	Optimum setting
Pilot filter	Set 54.7KHz signal to 47KΩ			Max. amplitude
Video Input Level	Standard Colour Bar Signal	Place oscilloscope probe on pin 10 of IC1601(SAD2140).	Adjust P1227.	The oscilloscope trace must show 1.85V p–p.

The remote control is used for entering and storing adjustments, with the exception of cut–off adjustments which must always be done prior to service adjustment. Perform adjustments in accordance with screen display. The display on the screen also specifies the CCU variants as well as the approx. setting values. Before you enter the service mode, set contrast to 44 and brightness to 22 and store each of these values. The adjustment sequence for the service mode is indicated below.

1. Set the Bass to maximum position, set the Treble to minimum position, press the Volume down on the customer controls at the front of the TV and at the same time press the Reset button on the remote control, this will place the TV into the Service Mode.
2. Press the RED / GREEN buttons to step up / down through the functions.
3. Press the YELLOW / BLUE buttons to alter the function values.
4. Press the STORE button on the preset panel after each adjustment has been made to store the required values.
5. To exit the Service Mode switch off the TV.

NOTE: This TV also has the option of using a Memory Pack which enables you to copy the preset TV channels into the Memory Pack and then download them onto this or any other EURO–1 TV set.

TV to Memory Pack process

1. Plug the memory pack into the lower of the two 21 pin terminals at the back of the TV and switch the TV on. If the TV has only one 21 pin connector then this will be able to accept the memory pack.
2. Go into the Service Mode as explained above. The screen will show:–

   Program
   External>>TV

3. Press the blue button on the remote control. The screen will show:–

   Program
   TV>>External

4. Press the STORE button on the TV. The screen will show:–

   Storing

5. All the tuning information stored inside the TV will now be transferred to the Memory Pack. This process will take 2–3 minutes to complete and when finished the screen will show:–

   OK!

Memory Pack to TV Process

1. Plug the memory pack into the lower of the two 21 pin terminals at the back of the TV and switch the TV on. If the TV has only one 21 pin connector then this will be able to accept the memory pack.
2. Go into the Service Mode as explained above. The screen will show:–

   Program
   External>>TV

3. Press the STORE button on the TV. The screen will show:–

   Loading

4. All the tuning information stored inside the Memory Pack will now be transferred to the TV. This process will take 2–3 minutes to complete and when finished the screen will show:–

   OK!

5. The tuning information from the Memory Pack has now been copied into the TV
6. To exit from the Service Mode switch off the TV.
7. The process has now been completed and the Memory Pack can now be removed.

Errors

If an error occurs while using the Memory Pack the TV will detect this and the screen will show:–

Program
Error!

If this happens then switch off the TV and then repeat the process that was being used. If the errors continue to occur then check the connectors between the TV and the memory pack and check the 9V battery inside the memory pack.

ABGLEICHVERFAHREN

Abgleich	Signal	Bedingungen	Einstellung	Einstellung / Bes. Merkmale
Betriebsspannung	Testbild	230 V–Strahlstrom 0	P633 abgleichen	Mit einem Voltmeter an der Katode von D651 +155V einstellen
Fokus	Testbild		Am Zeilentrafo fokussieren	Optimale Einstellung
Pilottonfilter	54.7 KHz Signal auf 47KΩ			Max. Amplitude
Videoeingangspegel	Farbbalkentestbild	Oszillograph an Pin 10 IC601(SAD2140)	P1227 abgleichen	Oszillogramm auf 1.85Vss einstellen

Die Fernbedienung dient zum Eingeben und Abspeichern der Einstellwerte, mit Ausnahme der Sperrpunkteinstellung, die grundsätzlich vor den hier beschriebenen Einstellungen vorgenommen werden muss. Die Einstellung erfolgt entsprechend dem Bildschirm–Display. Auf dem Bildschirm–Display erscheinen auch die CCU–Varianten sowie die ungefähren Einstellwerte. Vor dem Umschalten auf Service–Modus muss der Kontrast auf 44 und die Helligkeit auf 22 eingestellt werden, und diese Werte sind abzuspeichern. Die Einstellfolge für den Service–Modus ist nachstehend beschrieben.

1. Den Tiefenregler auf Höchstellung und den Höhenregler auf Mindeststellung stellen. Die Taste "Lautstärke Minus" am Bedienfeld vorne am FS–Gerät drücken und gleichzeitig die Taste "Reset" an der Fernbedienung betätigen. Hierdurch wird das FS–Gerät auf Service–Modus geschaltet.
2. Die einzelnen Funktionen mit Hilfe der ROTEN und GRÜNEN Taste anwählen.
3. Mit der GELBEN und BLAUEN Taste die Werte der einzelnen Funktionen ändern.
4. Nach jeder Einstellung die Taste STORE am Bedienfeld drücken, um die gewünschten Werte abzuspeichern.
5. Zum Verlassen des Service–Modus das FS–Gerät abschalten.

HINWEIS: Dieses FS–Gerät bietet auch die Möglichkeit eines Memory Pack, mit dem Sie die gewählten Fernsehkanäle abspeichern und auf jedes beliebige EURO1 FS–Gerät umkopieren können.

Kopieren der Einstelldaten vom FS–Gerät in das Memory Pack

1. Das Memory Pack in die untere der beiden 21–poligen Steckerleisten an der Rückseite des FS–Geräts stecken und das Gerät einschalten. Wenn das FS–Gerät nur eine 21–polige Anschlussleiste, kann das Memory Pack auch an diese angeschlossen werden.
2. Wie schon oben beschrieben auf Service–Modus umschalten. Auf dem Bildschirm erscheint:

   Program
   External>>TV
3. Nun die blaue Taste an der Fernbedienung betätigen. Auf dem Bildschirm erscheint:

   Program
   TV>>External
4. Die Taste STORE am Fernseher drücken. Der Bildschirm meldet nun:

   Storing
5. Die im FS–Gerät abgespeicherten Kanal–Einstelldaten werden nun in das Memory Pack Überspielt. Dieser Prozess nimmt zwei bisdrei Minuten in Anspruch; bei abgeschlossener DatenÜbertragung meldet der Bildschirm:

   OK!

Kopieren der Einstelldaten vom Memory Pack in das FS–Gerät

1. Das Memory Pack in die untere der beiden 21–poligen Steckerleisten an der Rückseite des FS–Geräts stecken und das Gerät einschalten. Wenn das FS–Gerät nur eine 21–polige Anschlussleiste hat, kann das Memory Pack auch an diese angeschlossen werden.
2. Wie schon oben beschrieben auf Service–Modus umschalten. Auf dem Bildschirm erscheint:

   Program
   External>>TV
3. Die Taste STORE am Fernseher drücken. Der Bildschirm meldet nun:

   Loading
4. Die im Memory Pack abgespeicherten Einstelldaten werden nun in das FS–Gerät Überspielt. Dieser Prozess nimmt zwei bis drei Minuteni in Anspruch; bei aggeschlossener Datenübertragung meldet der Bildschirm:

   OK!
5. Die Kanal–Einstelldaten sind damit vom Memory Pack in das FS–Gerät überspielt.
6. Zum Verlassen des Service–Modus das FS–Gerät abschalten.
7. Der Kopiervorgang ist somit abgeschlossen, und das Memory Pack kann von der Steckerleiste abgezogen werden.

Fehler

Falls bei Gebrauch des Memory Pack Fehler aufreten, zeigt das FS–Gerät dies auf dem Bildschirm mit der folgenden Meldung an:

Program
Error!

In diesem Fall muss das FS–Gerät abgeschaltet und anschliessend der Vorgang wiederholt werden. Falls weiterhin Fehlermeldungen erscheinen, müssen die Anschlusskontakte zwischen FS–Gerät und Memory Pack sowie die 9V Batterie im Memory Pack kontrolliert werden.

Alignment Settings(TX28W3C)

Alignment Function	Display	Settings / Special features
1. Vertical amplitude	V–AMP 149 Amplitude 149	Optimum setting
2. Vertical symmetry	V–SYM 064 Symmetry 064	
3. Vertical linearity	V–LIN 056 Linearity 056	
4. Horizontal amplitude	H–AMP 057 Amplitude 057	
5. Horizontal position	H–POS 007 Position 007	
6. EW–amplitude	E–W–AMP 1 053 EW–Ampl.1 053	Optimum setting
7. EW–amplitude	E–W–AMP 2 033 EW–Ampl.2 033	Optimum setting
8. Trapezium–comp	TRAPEZ–1 074 Trapez1 074	Optimum setting
9. Trapezium– comp	TRAPEZ–2 022 Trapez2 022	Optimum setting
10. Switch–over point	SW–OVER–1 037 SW–Over1 037	Optimum setting
11. Switch–over point	SW–OVER–2 151 SW–Over2 151	Do not adjust
12. Y–delay	Y–DELAY 010 Y–Delay 010	Optimum setting
13. Sub–carrier osc. adjustment	COLOUR–VCO 020 Colour VCO 020	Set frequency
14. Screen	SCREEN 040 | 007 | 010	To adjust the screen settings. Turn P3362 to minimum, place an oscilloscope probe on the cathode with the highest output and adjust P3368 so the oscilloscope trace reads 150Vp–p, then turn P3362 up so the highest numbered box on the TV screen reads 040 ± 010.
15. Low light	LOW LIGHT 073 | 031 | 050	Press the GREEN button to step through the settings.
16. High light	HIGH LIGHT 187 | 255 | 240	Press the GREEN button to step through the settings.

Abgleichtabelle (TX28W3C)

Abgleichfunktion	Display	Einstellung/Besondere Merkmale
1. Vertikale Amplitude	V–AMP 149 Amplitude 149	Optimale Einstellung
2. Vertikale Symmetrie	V–SYM 064 Symmetry 064	
3. Vertikale Linearität	V–LIN 056 Linearity 056	
4. Horizontale Amplitude	H–AMP 057 Amplitude 057	
5. Horizontale Position	H–POS 007 Position 007	
6. OW–Amplitude	E–W–AMP 1 053 EW–Ampl.1 053	Optimale Einstellung
7. OW–Amplitude	E–W–AMP 2 033 EW–Ampl.2 033	Optimale Einstellung
8. Trapez–Kompensation	TRAPEZ–1 074 Trapez1 074	Optimale Einstellung
9. Trapez–Kompensation	TRAPEZ–2 022 Trapez2 022	Optimale Einstellung
10. Umschaltpunkt	SW–OVER–1 037 SW–Over1 037	Optimale Einstellung
11. Umschaltpunkt	SW–OVER–2 151 SW–Over2 151	Nicht einstellen
12. Y–Verzögerung	Y–DELAY 010 Y–Delay 010	Optimale Einstellung
13. Einstellen der Hilfsträger–Schwebung	COLOUR–VCO 020 Colour VCO 020	Schwebung einstellen
14. Bildschirm	SCREEN 040 007 010	Zum Einstellen des Bildschirms P3362 auf Linksanschlag stellen.Oszillograph an die Rotkatode anschliessen und mit P3362 auf 150Vss einstellen; danach P3362 so einstellen, daß im roten Feld auf dem FS–Bildschirm der Wert 040±010 erscheint.
15. Schwarzwerte	LOW LIGHT 073 031 050	Die Einstellungen mit Hilfe der GRÜNEN Taste anwählen.
16. Weisswerte	HIGH LIGHT 187 255 240	Die Einstellungen mit Hilfe der GRÜNEN Taste anwählen.

Alignment Settings (TX25W3C)

Alignment Function	Display	Settings / Special features
1. Vertical amplitude	V–AMP 149 Amplitude 149	Optimum setting
2. Vertical symmetry	V–SYM 037 Symmetry 009	
3. Vertical linearity	V–LIN 037 Linearity 037	
4. Horizontal amplitude	H–AMP 057 Amplitude 057	
5. Horizontal position	H–POS 007 Position 007	
6. EW–amplitude	E–W–AMP 1 053 EW–Ampl.1 053	Optimum setting
7. EW–amplitude	E–W–Amp 2 021 EW–Ampl.2 021	Optimum setting
8. Trapezium–comp	TRAPEZ–1 071 Trapez 1 071	Optimum setting
9. Trapezium– comp	TRAPEZ–2 028 Trapez 2 028	Optimum setting
10. Switch–over point	SW–OVER–1 026 SW–Over 1 026	Optimum setting
11. Switch–over point	SW–OVER–2 140 SW–Over 2 140	Do not adjust
12. Y–delay	Y–DELAY 007 Y–Delay 007	Optimum setting
13. Sub–carrier osc. adjustment	Colour–VCO –002 Colour VCO –002	Set frequency
14. Screen	SCREEN 040 | 007 | 010	To adjust the screen settings. Turn P3362 to minimum, place an oscilloscope probe on the cathode with the highest output and adjust P3368 so the oscilloscope trace reads 150Vp–p, then turn P3362 up so the highest numbered box on the TV screen reads 040 ± 010.
15. Low light	LOW LIGHT 018 | 008 | 017	Press the GREEN button to step through the settings.
16. High light	HIGH LIGHT 177 | 255 | 238	Press the GREEN button to step through the settings.

Abgleichtabelle (TX25W3C)

Abgleichfunktion	Display	Einstellung/Besondere Merkmale
1. Vertikale Amplitude	V–AMP 149 Amplitude 149	Optimale Einstellung
2. Vertikale Symmetrie	V–SYM 037 Symmetry 009	
3. Vertikale Linearität	V–LIN 037 Linearity 037	
4. Horizontale Amplitude	H–AMP 057 Amplitude 057	
5. Horizontale Position	H–POS 007 Position 007	
6. OW–Amplitude	E–W–AMP 1 053 EW–Ampl.1 053	Optimale Einstellung
7. OW–Amplitude	E–W–Amp 2 021 EW–Ampl.2 021	Optimale Einstellung
8. Trapez–Kompensation	TRAPEZ–1 071 Trapez 1 071	Optimale Einstellung
9. Trapez–Kompensation	TRAPEZ–2 028 Trapez 2 028	Optimale Einstellung
10. Umschaltpunkt	SW–OVER–1 026 SW–Over 1 026	Optimale Einstellung
11. Umschaltpunkt	SW–OVER–2 140 SW–Over 2 140	Nicht einstellen
12. Y–Verzögerung	Y–DELAY 007 Y–Delay 007	Optimale Einstellung
13. Einstellen der Hilfsträger–Schwebung	Colour–VCO –002 Colour VCO –002	Schwebung einstellen
14. Bildschirm	SCREEN 040 | 007 | 010	Zum Einstellen des Bildschirms P3362 auf Linksanschlag stellen.Oszillograph an die Rotkatode anschliessen und mit P3362 auf 150Vss einstellen; danach P3362 so einstellen, daß im roten Feld auf dem FS–Bildschirm der Wert 040±010 erscheint.
15. Schwarzwerte	LOW LIGHT 018 | 008 | 017	Die Einstellungen mit Hilfe der GRÜNEN Taste anwählen.
16. Weisswerte	HIGH LIGHT 177 | 255 | 238	Die Einstellungen mit Hilfe der GRÜNEN Taste anwählen.

Fixed Mode Operation

This will reset to the following listed settings and TV systems to assist fault-finding and servicing of the TV set.
Use the Service Remote Control (Part No. TZS2EK004) to enter the fixed mode operation as follows.
Press the **Service button,** located between the Off Timer and Audio Out buttons, plus one of the following numeric keys to select the desired TV system and listed functions:-

1 ..... Fixed data + PAL
2 ..... Fixed data + SECAM
3 ..... Fixed data + M-NTSC
4 ..... Fixed data + NTSC

Fixed Data

Power ..... On
AV ..... On (AV1)
Colour ..... Mid
Brightness ..... Mid
Contrast ..... Max
Sharpness ..... Mid
Ec Mode ..... Off
RGB Interrupt ..... Off
Text Processor ..... TV
OSD ..... Off
Volume ..... Position 8 of 64 steps
Balance ..... Centre
Bass ..... Centre
Treble ..... Centre
Music / Speech ..... Music

Service-Mode der Festspeicherdaten

Dieser Servicemode setzt alle unten aufgelisteten Daten und das Farbsystem auf die unten beschriebenen Werte, um eine einfache Fehlerdiagnose durchzuführen.
Verwenden Sie bitte die spezielle Service-Fernbedienung (E-Teil Nr: TZS2EK004), um in den Servicemode zu gelangen.
Drücken Sie die Service-Taste zwischen der Off-Timer- und der Audio-Out Taste und danach die Zahl für das entsprechende Farbsystem.

1 ..... Festdaten für PAL
2 ..... Festdaten für SECAM
3 ..... Festdaten für M-NTSC
4 ..... Festdaten für NTSC

Festdaten

Netzfunktion ..... EIN
AV-Eingang ..... EIN (AV1)
Farbkontrast ..... MITTELSTELLUNG
Helligkeit ..... MITTELSTELLUNG
Kontrast ..... MAXIMUM
Bildschärfe ..... MITTELSTELLUNG
Schaltspg. Pin8 ..... AUS
Schaltspg. Pin6 ..... AUS
Videotextprozessor ..... TV-BETRIEB
Menueeinblendung ..... AUS
Lautstärke ..... POS 8 VON 64 SCHRITTEN
Balance ..... MITTELSTELLUNG
Bässe ..... MITTELSTELLUNG
Höhen ..... MITTELSTELLUNG
Musik/Sprache ..... MUSIK

Integrated Circuit Information

MCU ..... Master Clock Unit
VDU ..... Video Display Unit
DFU ..... Digital Feature Unit
ACVP ..... Adaptive Comb and Video Processor
DPU ..... Deflection Processing Unit
SPU ..... SECAM Processing Unit
DTI ..... Digital Transient Improvement
SAD ..... S.VHS Analogue / Digital Converter
TPU ..... Teletext Processor Unit
CCU ..... Central Control Unit
ACP ..... Audio Control Processor

Integrierter Schaltkreis Informationen

MCU ..... Master Clock Einheit
VDU ..... Video Anzeige / Einblendungs Einheit
DFU ..... Digital Prozessor Einheit (CTI+LTI)
ACVP ..... Comb-Filter und Videoprozessor
DPU ..... Ablenkstufen Prozessor Einheit
SPU ..... SECAM Prozessor Einheit
DTI ..... Digitale Kantenschärfen Verbesserung
SAD ..... S.VHS Analog / Digital Umwandler
TPU ..... Videotext Prozessor Einheit
CCU ..... Zentralcomputer Kontroll Einheit
ACP ..... Audio Controll Prozessor

SELF CHECK

Self check is used to automatically check the Bus Lines and Hexadecimal code of the TV set.
To get into the Self Check mode press Volume down button, on the Preset Panel, at the same time pressing the Off–Timer button, on the Remote Control, and the screen will show:–

1	— ok	Tuner	11	— ok	SCL1
2	— ok	VIF	12	— ok	SCL2
3	— ok	EEPROM	13	— ok	SHU
4	— ok	Sound AV switch1	14	— ok	SDA
5	— --	Sound AV switch2	15	— ok	LXB
6	— ok	Video AV switch1	16	— ok	IM switching 4
7	— ok	Video AV switch2	17	— ok	IM switching 5
8	— --	Sat tuner	18	— ok	Reset TPU
9	— ok	IM bus1	19	— ok	Reset APU
10	— ok	IM bus2	20	— ok	Stand By LED

If the CCU ports have been checked and found to be incorrect then "––" will appear in place of "OK".

21	—ok	Key Scan
22	—ok	Fast Blanking Priority
23	—ok	Service Mode
24	—ok	RAM

7A
C0
16

Hex codes

Reset Analogue Values

After exiting from the Self Check mode the set will have reset the EEPROM to the values descibed below:–

Recall	Off	
Last programme	1	
Music / Speech	Music	
Last AV	AV1	
Sound Multi	Stereo, S1	
Balance	Centre	
Programme data (0–99)	AFC	On
	Colour Sys	Auto
	Fine Tune	Centre
Sets to normal levels	Volume	
	Bass	
	Treble	
	Colour	
	Brightness	
	Tint	
	Contrast	
	Sharpness	

SELBSTDIAGNOSE

Die Selbstdiagnose dient zum automatischen Prüfen der Bus–Leitungen sowie des Hexadezimalcodes des FS–Geräts. Zum Umschalten auf Selbstdiagnose die Taste "Lautsärke Minus" am Bedienfeld des Geräts und gleichzeitig die Taste "Off–Timer" an der Fernbedienung drücken; auf dem Bildschirm erscheint hierauf:–

1	— ok	Tuner	11	— ok	SCL1
2	— ok	ZF–Verstärker	12	— ok	SCL2
3	— ok	EEPROM	13	— ok	SHU
4	— ok	Audio AV–Schalter 1	14	— ok	SDA
5	— --	Audio AV–Schalter 2	15	— ok	LXB
6	— ok	Video AV–Schalter 1	16	— ok	Intermetallbus Umschaltung4
7	— ok	Video AV–Schalter 2	17	— ok	Intermetallbus Umschaltung5
8	— --	Sat–Tuner	18	— ok	Rücksetzen TPU
9	— ok	IM–BUS1	19	— ok	Rücksetzen APU
10	— ok	IM–BUS2	20	— ok	LED–für Bereitschaftsanzeige

Wenn der Hauptprozessor (CCU) an den Anschlüssen einen Fehler finden sollte, oder der Anschluss nicht belegt ist (zB. :Sat–Tuner nicht eingebaut), zeigt die entsprechende Position – – anstelle von OK an.

21	—ok	Eingabekontrolle Bedienfeld
22	—ok	Vorrang für die Schaltspg. an Pin 16 AV1
23	—ok	Service Mode
24	—ok	RAM

7A
C0
16

Hexadezimalcode

Rücksetzen der Analogwerte

Nach dem Verlassen des Selbstdiagnosemodus durch Drücken einer beliebigen Taste auf der Fernbedienung oder am Bedienfeld des FS–Gerätes, werden folgende Positionen zurückgesetzt:

Programmanzeige	AUS	
Programmposition	1	
Musik/Sprache	MUSIK	
AV–Eingang	AV1	
Audio–Signal	STEREO/BZW,S1	
Balance	MITTELSTELLUNG	
Programmplatzdaten (0–99)	AFC	ON
Farbsystemauswahl	AUTO	
Feinabstimmung	MITTELSTELLUNG	
Auf werksseitig gesetzte Normalwerte	LAUTSTÄRKE	
	BÄSSE	
	HÖHEN	
	FARBKONTRAST	
	HELLIGKEIT	
	TINT (NUR NTSC)	
	KONTRAST	
	BILDSCHÄRFE	

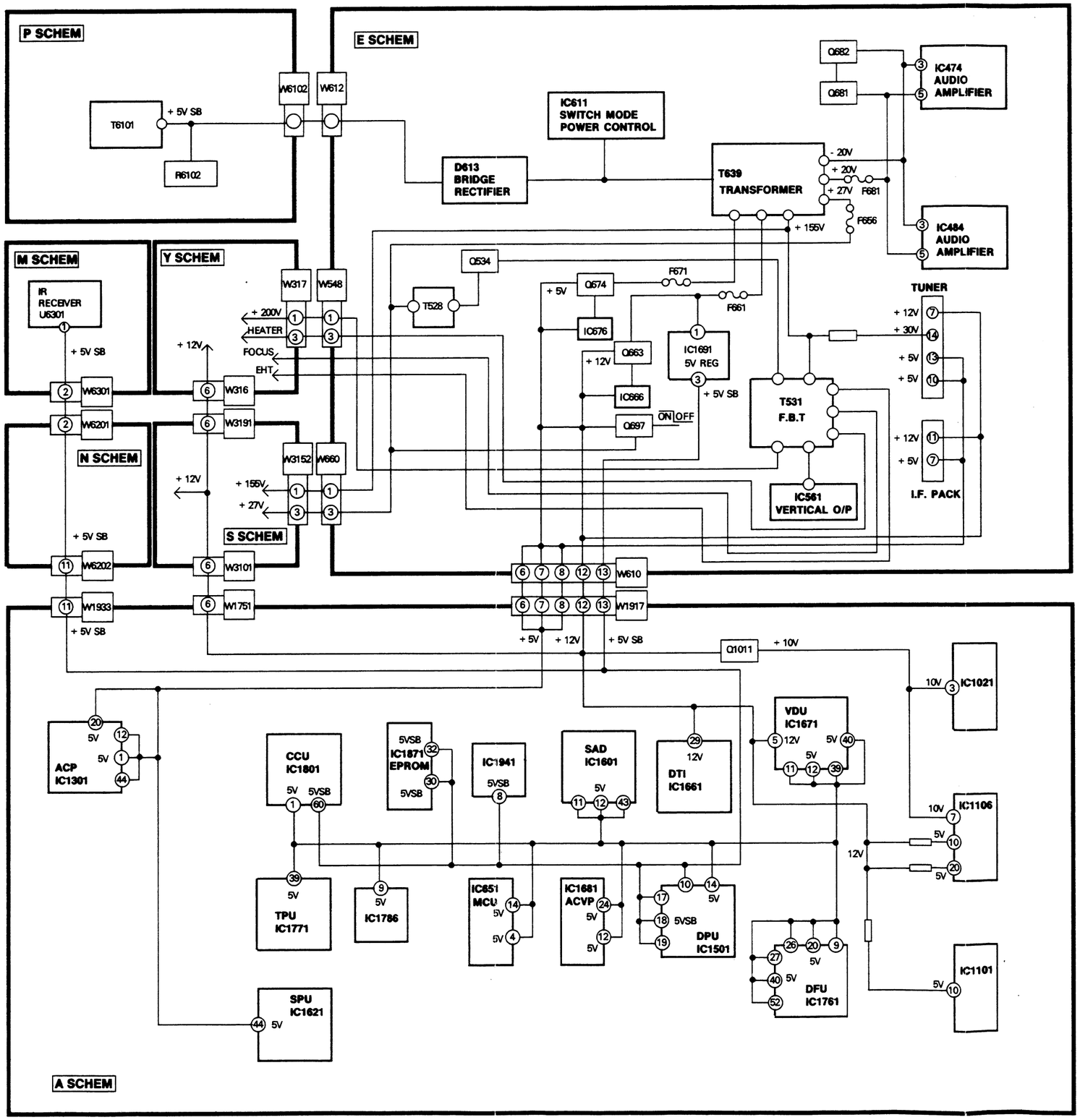
NOTES

BLOCK DIAGRAM

(POWER LINE)

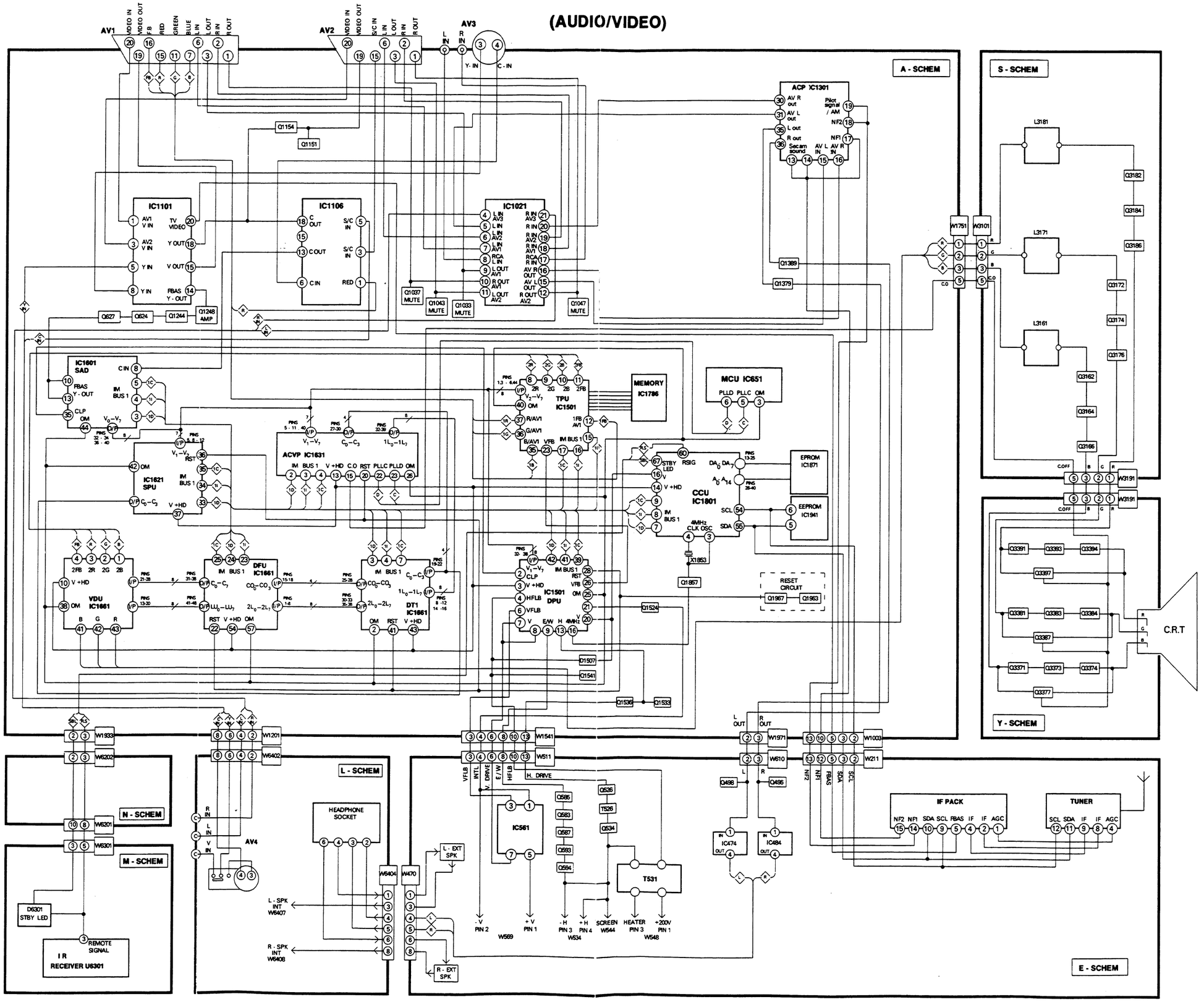
BLOCKSCHALTBILD

(SPANNUNGSVERSORGUNGSWEG)



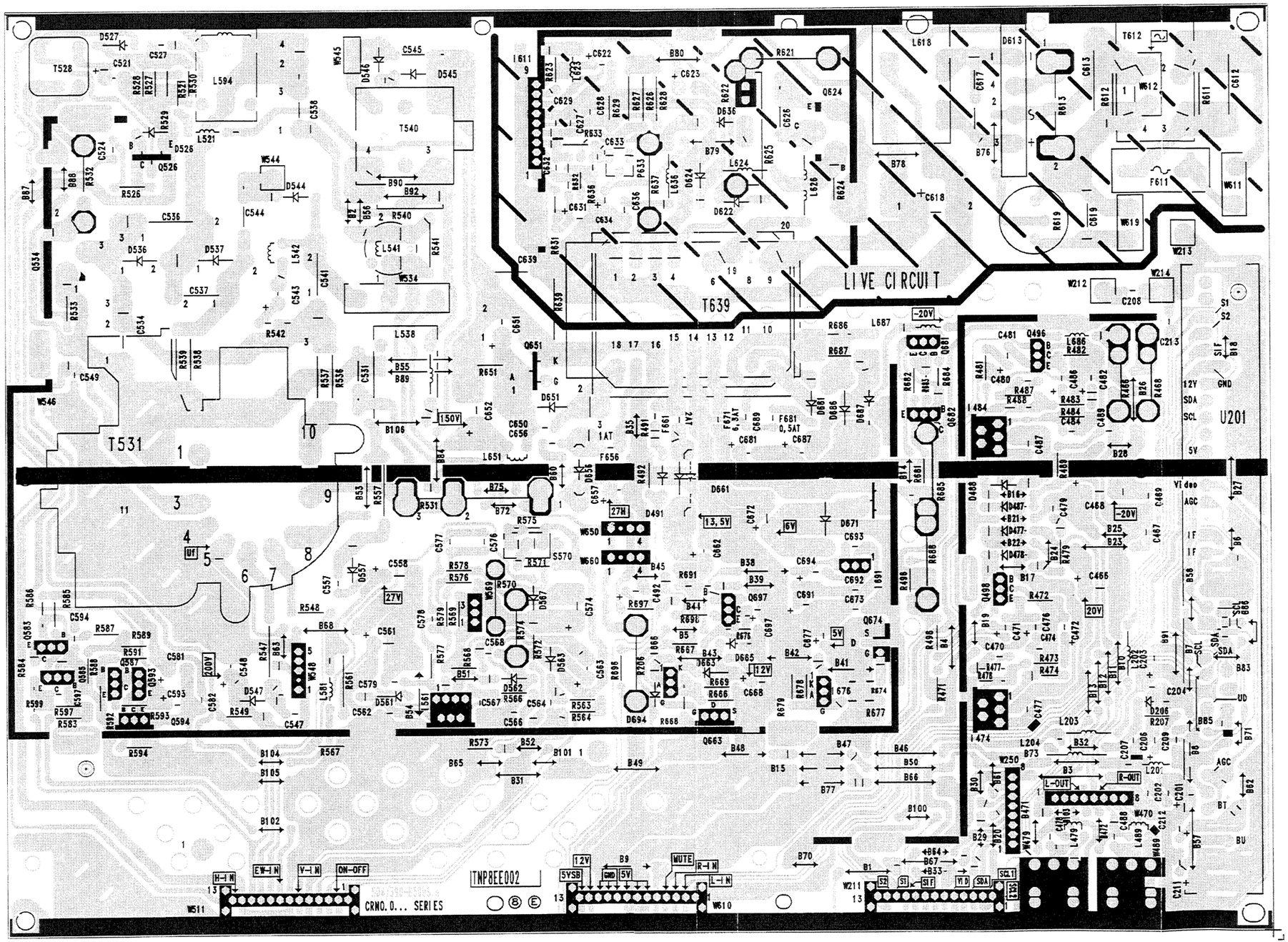
BLOCK DIAGRAM BLOCKSCHALTBILD

(AUDIO/VIDEO)



CONDUCTOR VIEWS
E-BOARD TNP8EE002

ANSICHT DER LEITERBAHNEN
PLATINE E TNP8EE002



PARTS LOCATION

E-BOARD IC	
IC561	C2
IC611	D6
IC666	E2
IC676	F2
IC691	F2
IC484	F4
IC474	G2

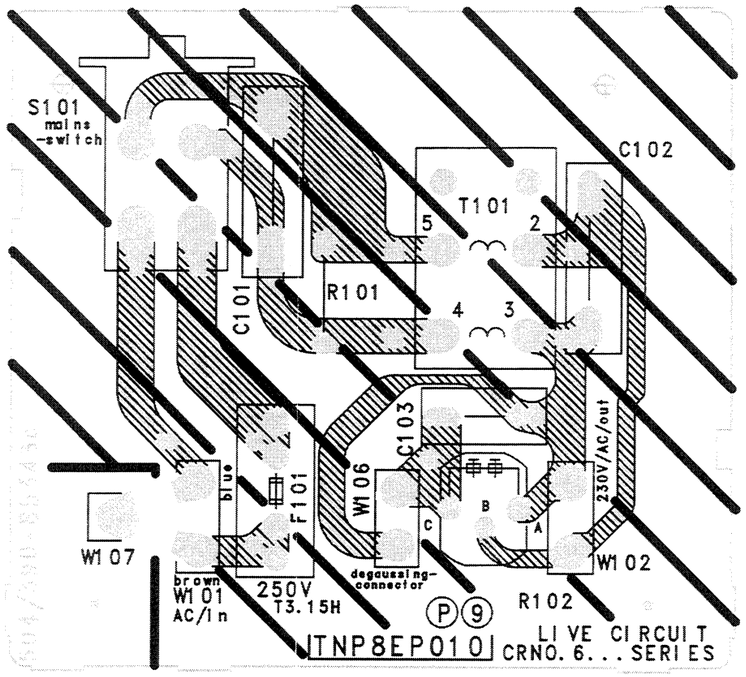
Transistor	
Q583	A2
Q585	A2
Q587	A2
Q534	A5
Q593	B2
Q594	B2
Q526	B5
Q651	D4
Q663	E2
Q697	E3
Q674	F3
Q681	F4
Q682	F4
Q624	F6
Q498	G3
Q496	G4

E-BOARD Diode	
D527	A6
D547	B2
D526	B5
D536	B5
D537	B5
D544	B5
D661	C2
D557	C3
D562	D2
D563	D2
D666	D3
D567	D3
D651	D4
D663	E2
D665	E2
D694	E2
D491	E3
D661	E3
D681	E4
D622	E5
D624	E5
D636	E5
D671	F3
D686	F4
D687	F4
D206	G2
D477	G3
D478	G3
D487	G3
D488	G3
D613	G6

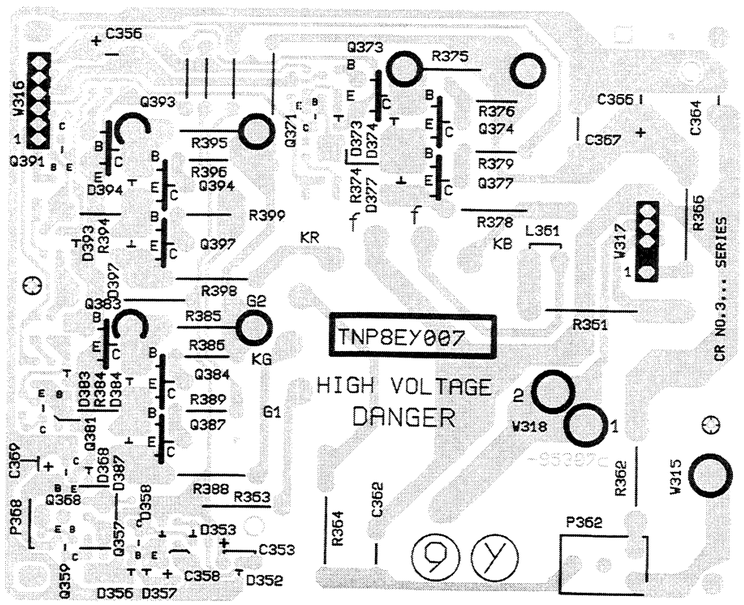
NOTE
ALL COMPONENTS ON THE Y BOARD HAVE THE NUMBER (3) BEFORE THE COMPONENT NUMBER. ie Q359 IS Q3359.

P-BOARD TNP8EP010
PLATINE P TNP8EP010

HINWEIS
ALLE BAUTEILE AUF DEM Y-BOARD HABEN DIE NUMMER (3) VOR DER BAUTEILENUMMER. z.B. Q359 ENTSPRICHT Q3359.



Y-BOARD TNP8EY007
PLATINE Y TNP8EY007

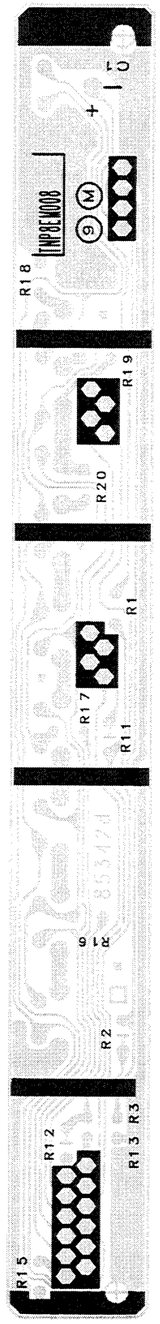


PARTS LOCATION

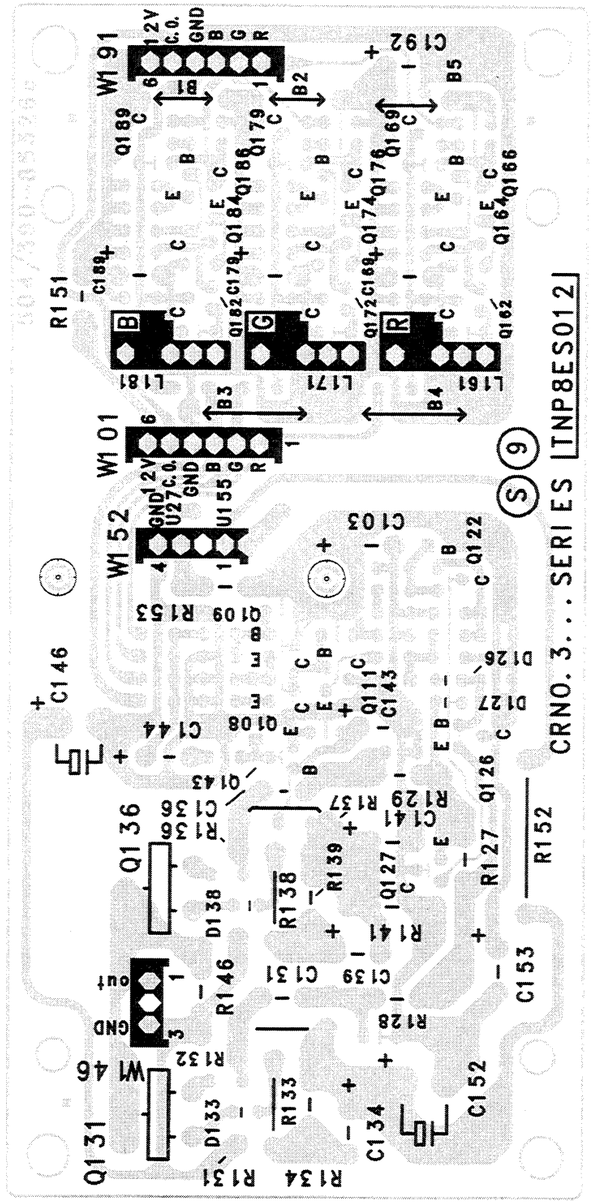
Y-BOARD	
Transistor	
Q3369	A1
Q3368	A1
Q3391	A3
Q3357	B1
Q3387	B1
Q3381	B2
Q3383	B2
Q3384	B2
Q3371	B3
Q3393	B3
Q3394	B3
Q3397	B3
Q3373	C3
Q3374	C3
Q3377	C3
Diode	
D3352	B1
D3353	B1
D3356	B1
D3357	B1
D3358	B1
D3368	B1
D3387	B1
D3383	B2
D3384	B2
D3393	B2
D3397	B2
D3394	B3
D3373	C3
D3374	C3
D3377	C3

NOTE
ALL COMPONENTS ON THE S BOARD HAVE THE NUMBER (3) BEFORE THE COMPONENT NUMBER. ie Q131 IS Q3131.

M-BOARD TNP8EM008
PLATINE M TNP8EM008



S-BOARD TNP8ES012
PLATINE S TNP8S012



HINWEIS
ALLE BAUTEILE AUF DEM S-BOARD HABEN DIE NUMMER (3) VOR DER BAUTEILENUMMER. z.B. Q131 ENTSPRICHT Q3131.

PARTS LOCATION

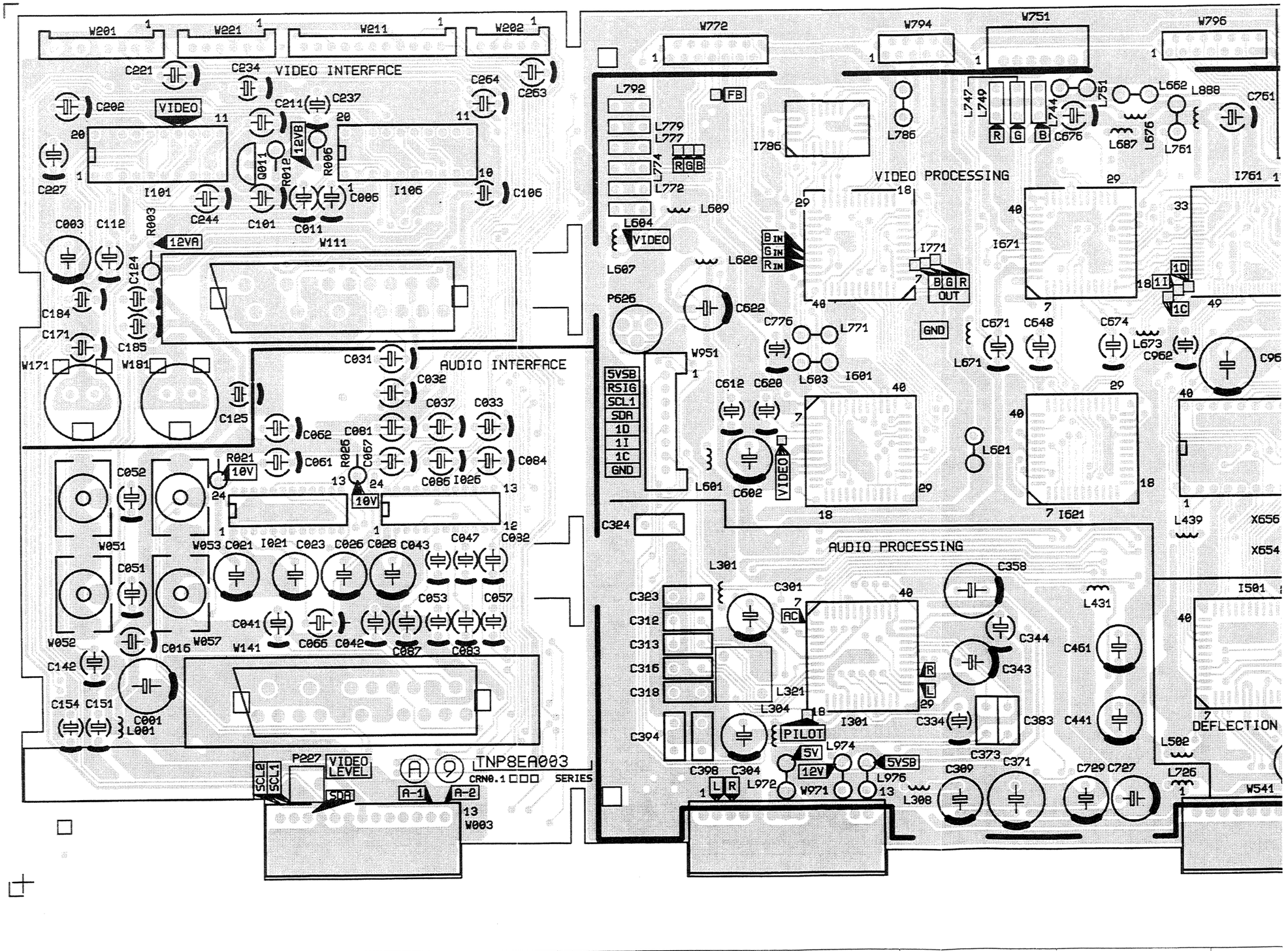
S-BOARD	
Transistor	
Q3131	B1
Q3189	B5
Q3127	D2
Q3136	C2
Q3108	C3
Q3109	C3
Q3143	C3
Q3172	C4
Q3174	C5
Q3179	C5
Q3182	C5
Q3184	C5
Q3186	C5
Q3126	D3
Q3111	D3
Q3122	D4
Q3162	D5
Q3164	D5
Q3166	D5
Q3169	D5
Q3176	D5
Diode	
D3133	C1
D3138	C2
D3126	D3
D3127	D3

NOTE:
ALL COMPONENTS ON THE A BOARD HAVE THE NUMBER (1) BEFORE THE COMPONENT NUMBER. ie IC501 IS IC1501

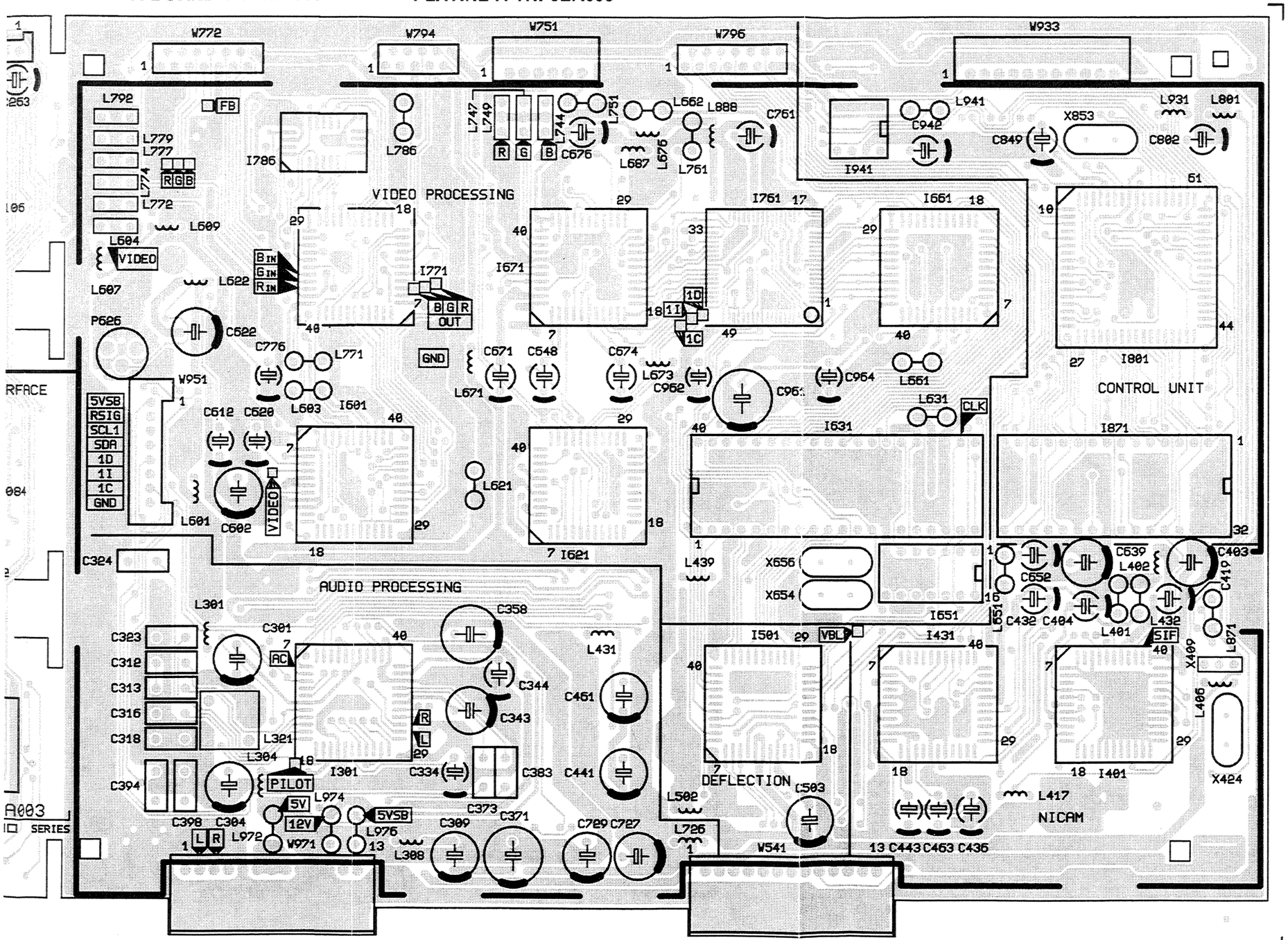
HINWEIS:
ALLE BAUTEILE AUF DEM A-BOARD HABEN DIE NUMMER (1) VOR DER BAUTEILSNUMMER. z.B. IC501 ENTSPRICHT IC1501

A-BOARD TNP8EA003

PLATINE A TNP8EA003



A-BOARD TNP8EA003 PLATINE A TNP8EA003



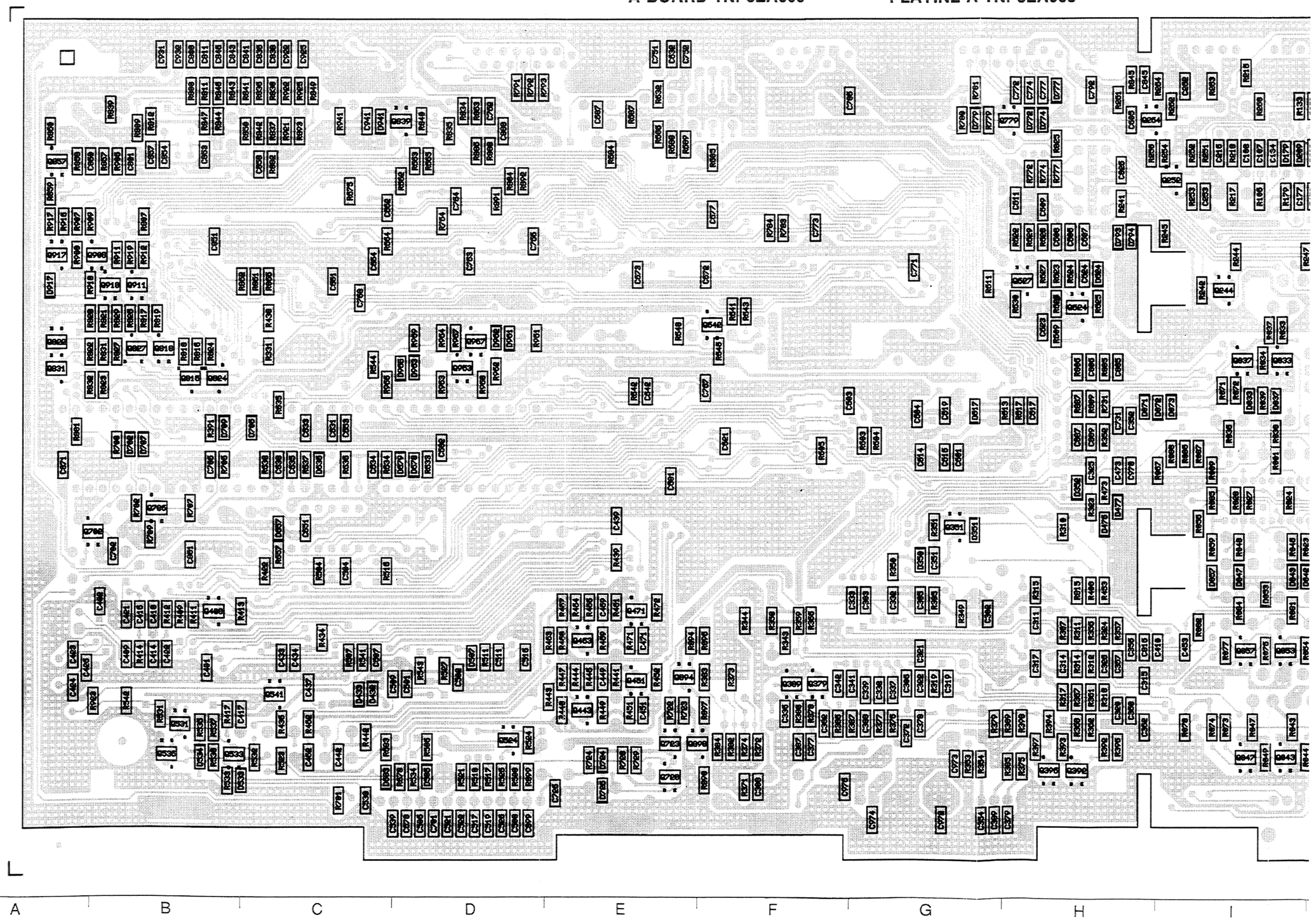
PARTS LOCATION	
A-BOARD	
IC	
IC1021	B3
IC1101	B5
IC1106	C5
IC1301	F2
IC1601	F4
IC1771	F4
IC1786	F6
IC1671	G5
IC1621	H3
IC1501	I3
IC1631	I4
IC1761	I5
IC1941	I5
IC1651	J3
IC1661	J5
IC1801	K4
IC1871	K4
Transistor	
Q1011	B5

E F G H I J K L

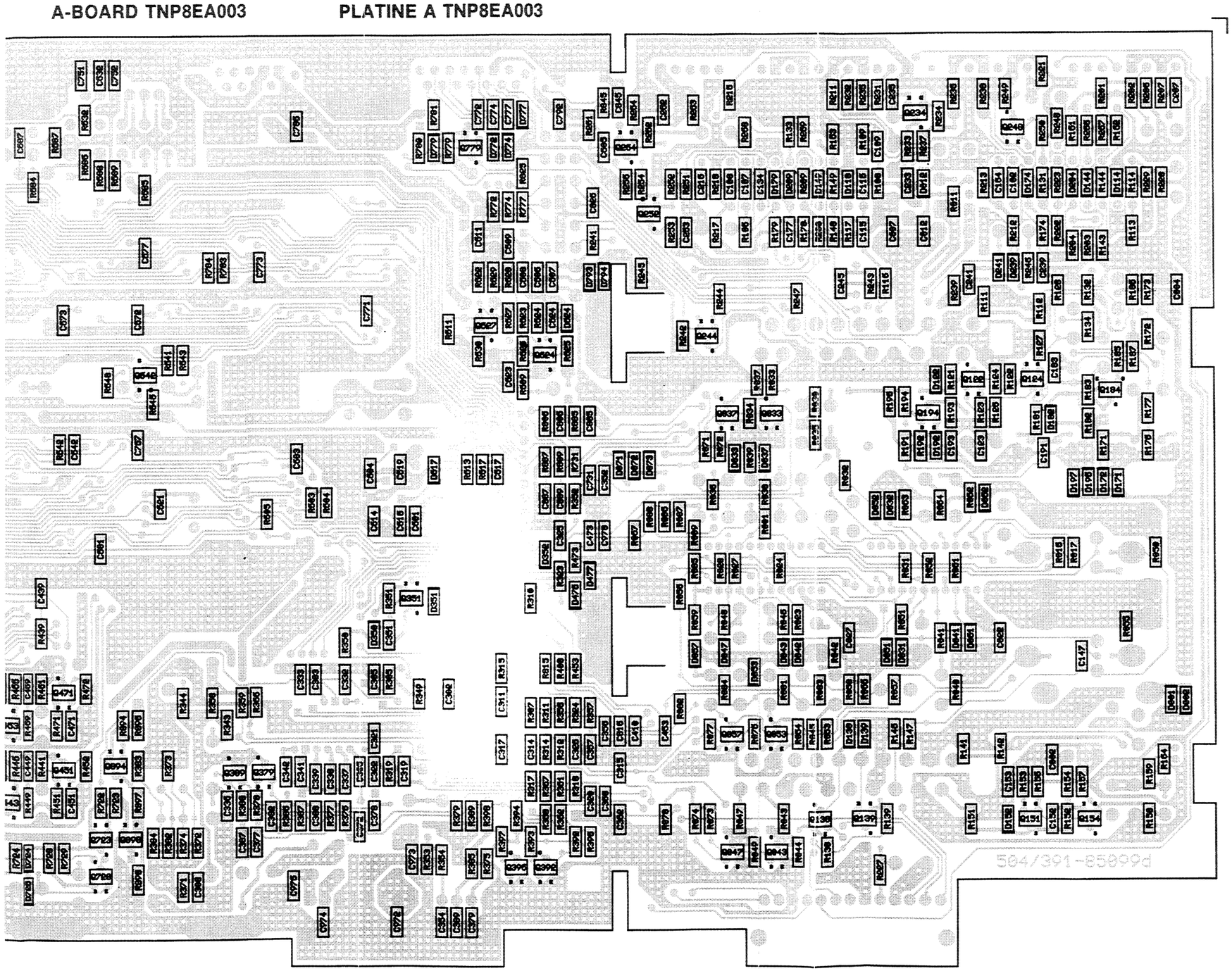
NOTE:
ALL COMPONENTS ON THE A BOARD HAVE THE NUMBER (1) BEFORE THE COMPONENT NUMBER. ie IC501 IS IC1501

HINWEIS:
ALLE BAUTEILE AUF DEM A-BOARD HABEN DIE NUMMER (1) VOR DER BAUTEILENUMMER. z.B. IC501 ENTSPRICHT IC1501.

A-BOARD TNP8EA003 PLATINE A TNP8EA003



A-BOARD TNP8EA003 PLATINE A TNP8EA003



PARTS LOCATION

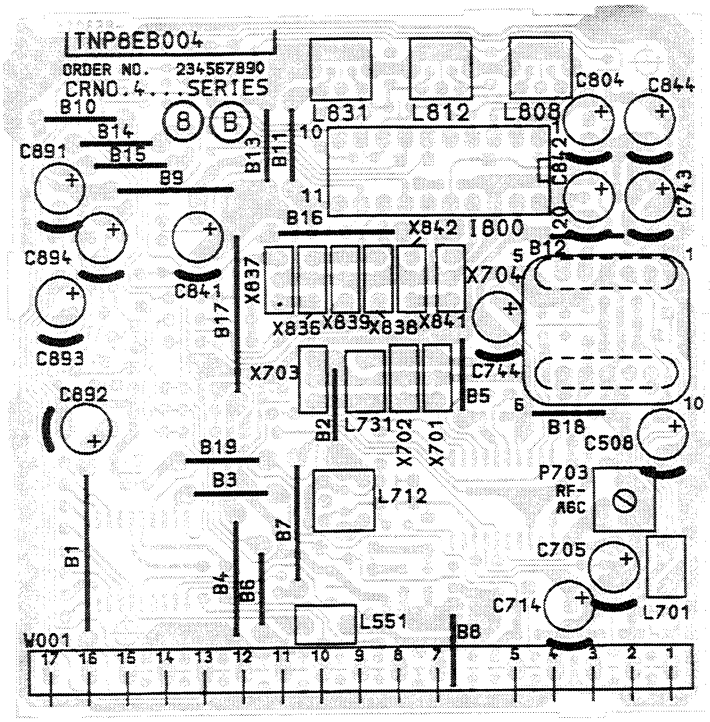
A-BOARD Diode	
D1533	B1
D1534	B2
D1702	B4
D1706	B4
D1707	B4
D1709	B4
D1683	C1
D1636	C3
D1657	C3
D1678	C3
D1679	C3
D1963	C4
D1966	C4
D1941	C5
D1506	D1
D1507	D2
D1961	D4
D1962	D4
D1724	E1
D1726	E1
D1350	G3
D1351	G3
D1617	G4
D1772	G6
D1779	G6
D1352	H3
D1071	H4
D1072	H4
D1073	H4
D1624	H5
D1793	H5
D1794	H5
D1261	H6
D1774	H6
D1777	H6
D1042	I3
D1043	I3
D1047	I3
D1033	I4
D1037	I4
D1179	I6
D1209	I6
D1138	J2
D1139	J2
D1031	J3
D1041	J3
D1051	J3
D1061	J3
D1032	J4
D1052	J4
D1062	J4
D1122	J4
D1012	J6
D1149	J6
D1152	K2
D1171	K4
D1172	K4
D1196	K4
D1197	K4
D1239	K5
D1144	K6
D1149	K6
D1174	K6
D1204	K6
D1001	L3
D1002	L3

A-BOARD Transistor	
Q1702	A3
Q1822	A4
Q1831	A4
Q1857	A5
Q1531	B2
Q1533	B2
Q1536	B2
Q1541	B2
Q1706	B3
Q1816	B4
Q1824	B4
Q1827	B4
Q1839	C6
Q1524	D2
Q1963	D4
Q1967	D4
Q1728	E1
Q1723	E2
Q1894	E2
Q1898	E2
Q1642	E4
Q1379	F2
Q1389	F2
Q1351	G3
Q1627	G5
Q1779	G6
Q1252	H5
Q1624	H5
Q1043	I1
Q1047	I1
Q1138	I2
Q1244	I5
Q1139	J2
Q1151	K2
Q1154	K2
Q1124	K4
Q1248	K6

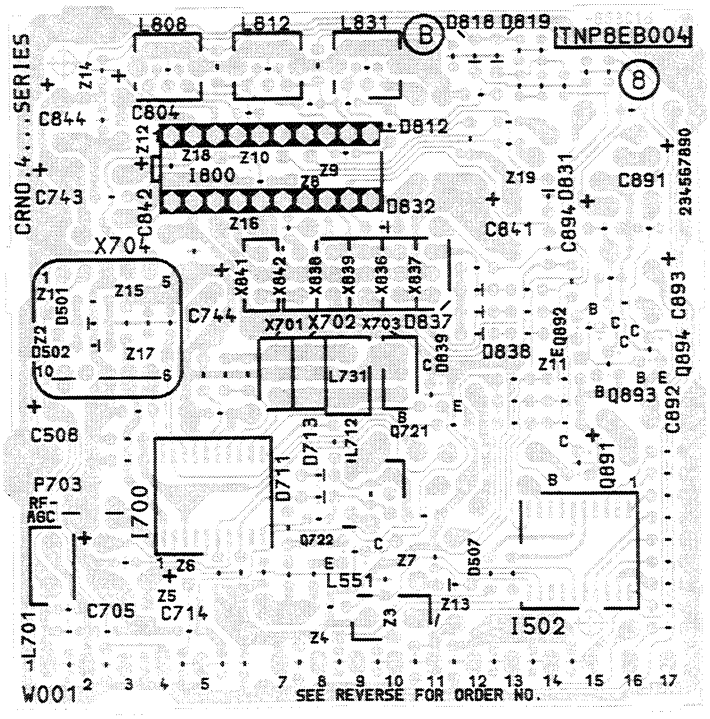
NOTE:
ALL COMPONENTS ON THE B BOARD HAVE THE NUMBER (4) BEFORE THE COMPONENT NUMBER. ie IC700 IS IC4700.

HINWEIS:
ALLE BAUTEILE AUF DEM B-BOARD HABEN DIE NUMMER (4) VOR DER BAUTEILENUMMER. z.B. IC700 ENTSPRICHT IC4700.

B-BOARD TNP8EB004
PLATINE B TNP8EB004



B-BOARD TNP8EB004
PLATINE B TNP8EB004



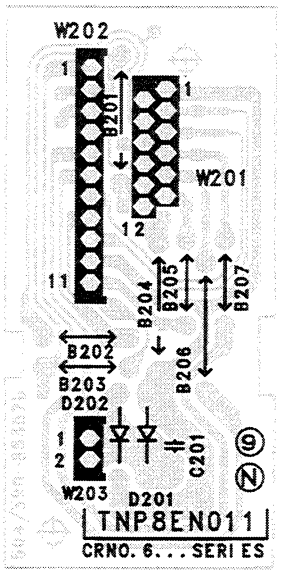
PARTS LOCATION

B-BOARD	
IC	
IC4700	A2
IC4800	B3
IC4502	C1
Transistor	
Q4722	B1
Q4721	B2
Q4891	C2
Q4892	C2
Q4894	C2
Q4893	C2
Diode	
D4501	A2
D4502	A2
D4507	B1
D4837	B2
D4839	B2
D4711	B2
D4713	B2
D4818	B3
D4812	B3
D4832	B3
D4831	C3

NOTE:
ALL COMPONENTS ON THE L BOARD HAVE THE NUMBER (6) BEFORE THE COMPONENT NUMBER. ie D432 IS D6432.

HINWEIS:
ALLE BAUTEILE AUF DEM L-BOARD HABEN DIE NUMMER (6) VOR DER BAUTEILENUMMER, z.B. D432 ENTSPRICHT D6432.

N-BOARD TNP8EN011
PLATINE N TNP8EN011



NOTE:
ALL COMPONENTS ON THE N BOARD HAVE THE NUMBER (6) BEFORE THE COMPONENT NUMBER. ie D201 IS D6201.

HINWEIS:
ALLE BAUTEILE AUF DEM N-BOARD HABEN DIE NUMMER (6) VOR DER BAUTEILENUMMER, z.B. D210 ENTSPRICHT D6210.

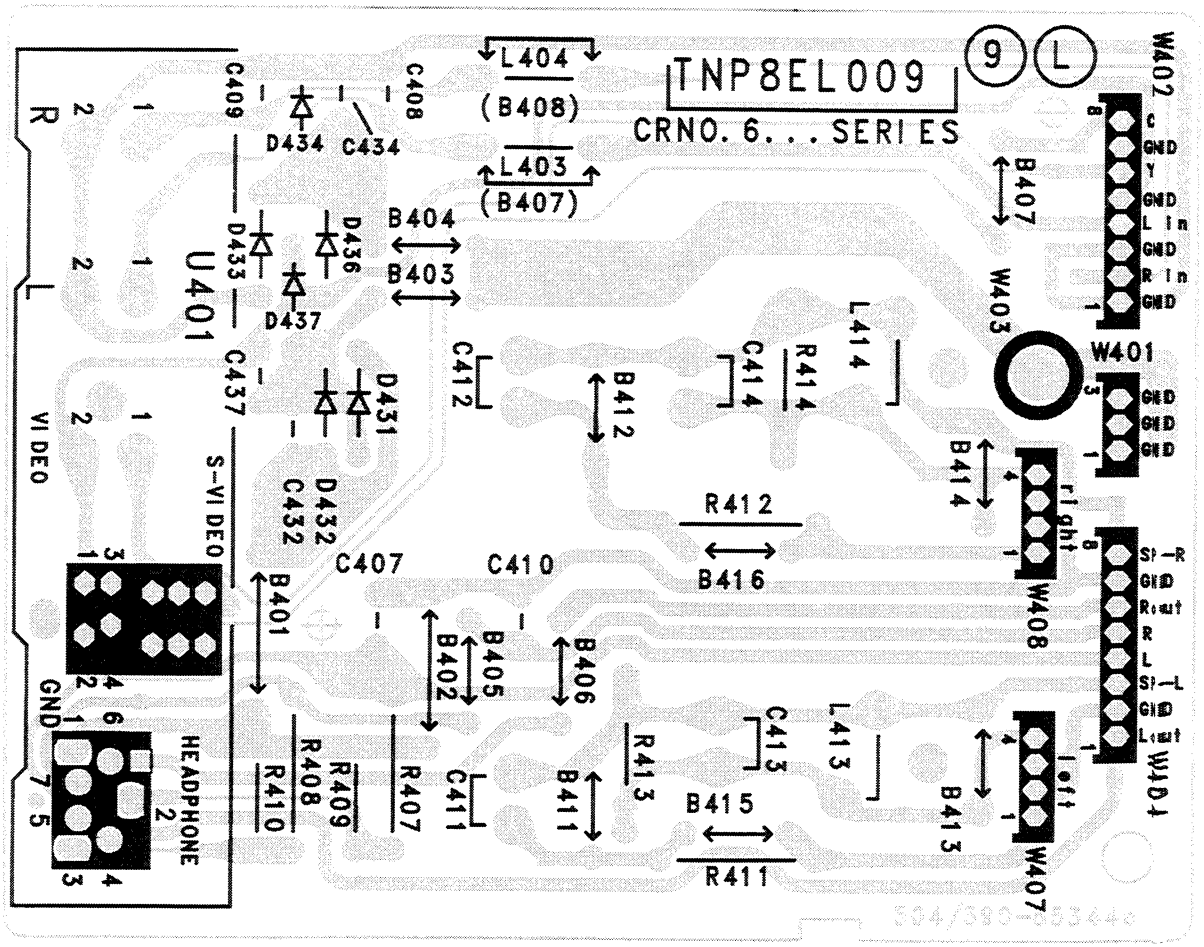
PARTS LOCATION

N-BOARD	
Diode	
D6201	C5
D6202	C5

PARTS LOCATION

L-BOARD	
Diode	
D6432	B2
D6431	B3
D6433	B3
D6436	B3
D6437	B3
D6434	B4

L-BOARD TNP8EL009
PLATINE L TNP8EL009



SCHEMATIC DIAGRAM FOR MODELS TX-28/25W3C (EURO-1 CHASSIS)

IMPORTANT SAFETY NOTICE

Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

Notes

1. RESISTOR
   All resistors are carbon ¼W resistor, unless marked as follows:
   Unit of resistance is OHM (Ω) (K=1,000, M=1,000,000).
2. COIL
   Unit of inductance is μH, unless otherwise stated.
3. TEST POINT
   : Test Point position
   : Waveform Test Point position
4. EARTH SYMBOL
   : Chassis Earth (Cold)
   : Line Earth (Hot)
5. VOLTAGE MEASUREMENT
   Voltage is measured by a DC voltmeter.
   Measurement conditions are as follows:
   Power sourceAC 230V, 50Hz
   Receiving SignalColour Bar signal (RF)
   All customer controls Maximum position
6. : Indicates the Video signal path
   : Indicates the Audio signal path
   : Indicates the Vertical/Horizontal signal path
7. This schematic diagram is the latest at the time of printing and is subject to change without notice.

Precautions

a. Do not touch the hot part, or the hot and cold parts at the same time, as you are liable to a shock hazard.
b. Do not short-circuit the hot and cold circuits as electrical components may be damaged.
c. Do not connect an instrument, such as an oscilloscope, to the hot and cold circuits simultaneously, as this may cause fuse failure. Connect the earth of the instruments to the earth connection of the circuit being measured.
d. Make sure to disconnect the power plug before removing the chassis.

Remarks

1. The Power Circuit contains a circuit area which uses a separate power supply to isolate the earth connection. The circuit is defined by HOT and COLD indications in the schematic diagram. All circuits, except the Power Circuit, are COLD. Take the following precautions:

ZEICHENERKLÄRUNG FÜR MODELL TX-28/25W3C (EURO-1 CHASSIS)

WICHTIGER SICHERHEITSHINWEIS

Teile, die mit einen Hinweis ⚠ gekennzeichnet sind, sind wichtig für die Sicherheit. Sollte ein Auswechseln erforderlich sein, sind unbedingt Originalteile einzusetzen.

Anmerkung

1. WIDERSTANDE
   Alle ¼Watt Widerstände sind Kohlewiderstände, Abweichungen sind folgt gekennzeichnet.
   Die Maßeinheit ist OHM (Ω) (K=1,000 M=1,000,000)
2. SPULEN
   Die Maßeinheit ist μH,Abweichungen sind gekennzeichnet.
3. TESTPUNKE
   : Kennzeichnung der Testpunktposition
   : Testpunkte mit Oszillogrammen
4. MASSESYMBOL
   :Erdung am Chassis
   : Erdung an Masse-Leitung
5. SPANNUNGSMESSUNG
   Spannungsmessungen sind mit einem DC-Voltmeter durchzuführen. Die Meßbedingungen sind folgende:

Netzspannung	230V/50Hz
Wiedregabe Signal	Farbbalken-Testbild
Alle übrigen Einstellungen für Benutzer	Sollangaben

6. :Videosignalweg
   :Audiosignalweg
   :Signalweg für Hor/Vert. Synchronsignale
7. Anderungen im Laufe der Fertigung sind möglich.

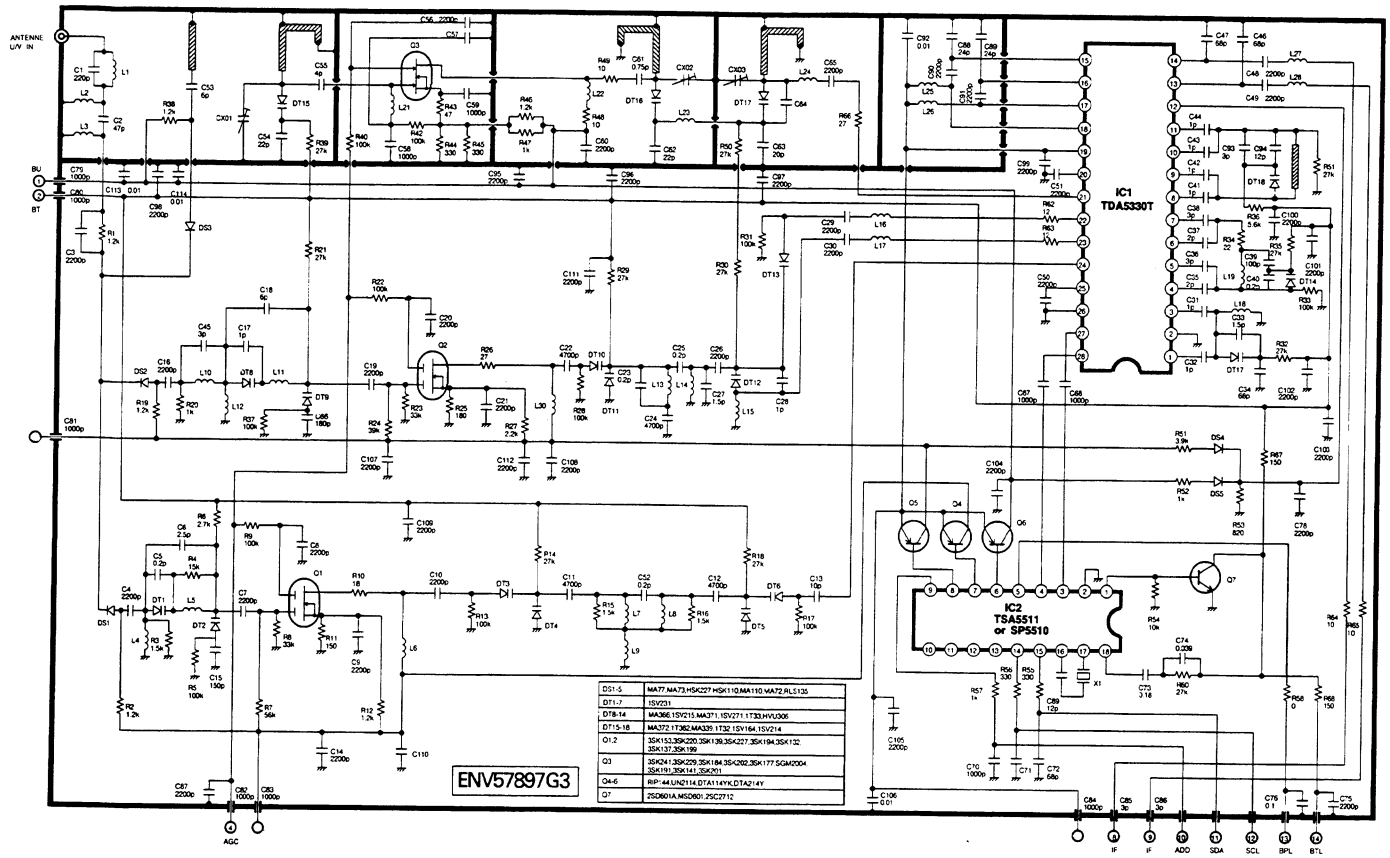
Für den netzverbundenen Bereich (HOT) sind folgende Vorsichtsmassregein zu beachten:

a. Weder die Leitungen im heißen noch Leitungen im heißen und im kalten Bereich gleichzeitig berühren. Es besteht die Gefahr eines elektrischen Schlages.
b. Keinesfalls die Leitungen im heißen Bereich mit denen im kalten Bereich verbinden oder kurzschliessen. Dies kann zur Zerstörung von Bauteilen oder Sicherungen führen. Außerdem ist die elektrische Betriebssicherheit des Gerätes nicht mehr gegeben.
c. Keine Messinstrumente gleichzeitig an Leitungen im heissen und kalten Bereich anschliessen. Sicherungen könnten zerstört werden. Die Erde des Messinstrumentes immer mit der des zu prüfenden Schaltkreises verbinden.
d. Vor Ausbau des Chassis, Stecker aus der Netzsteckdose ziehen.

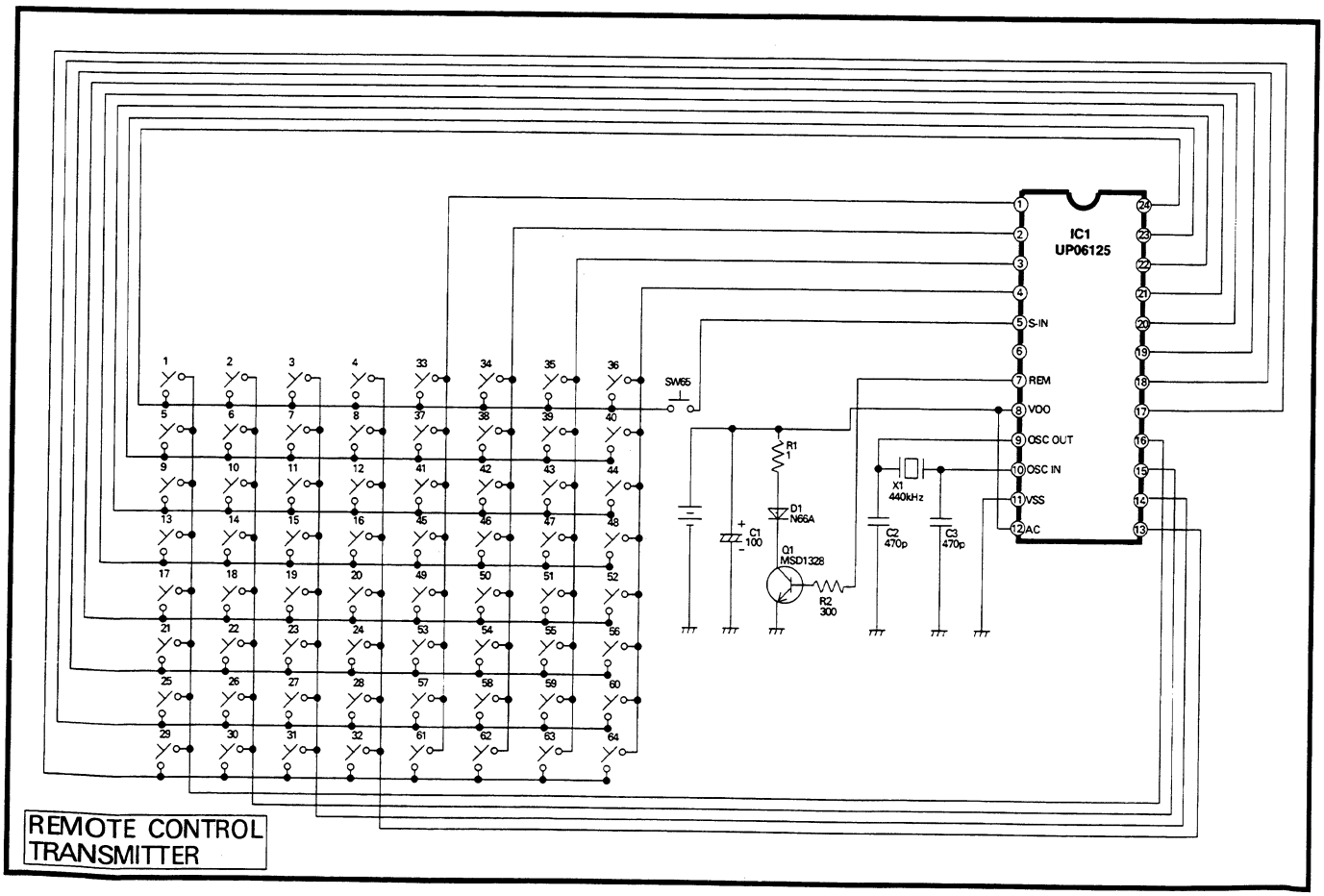
Bemerkungen

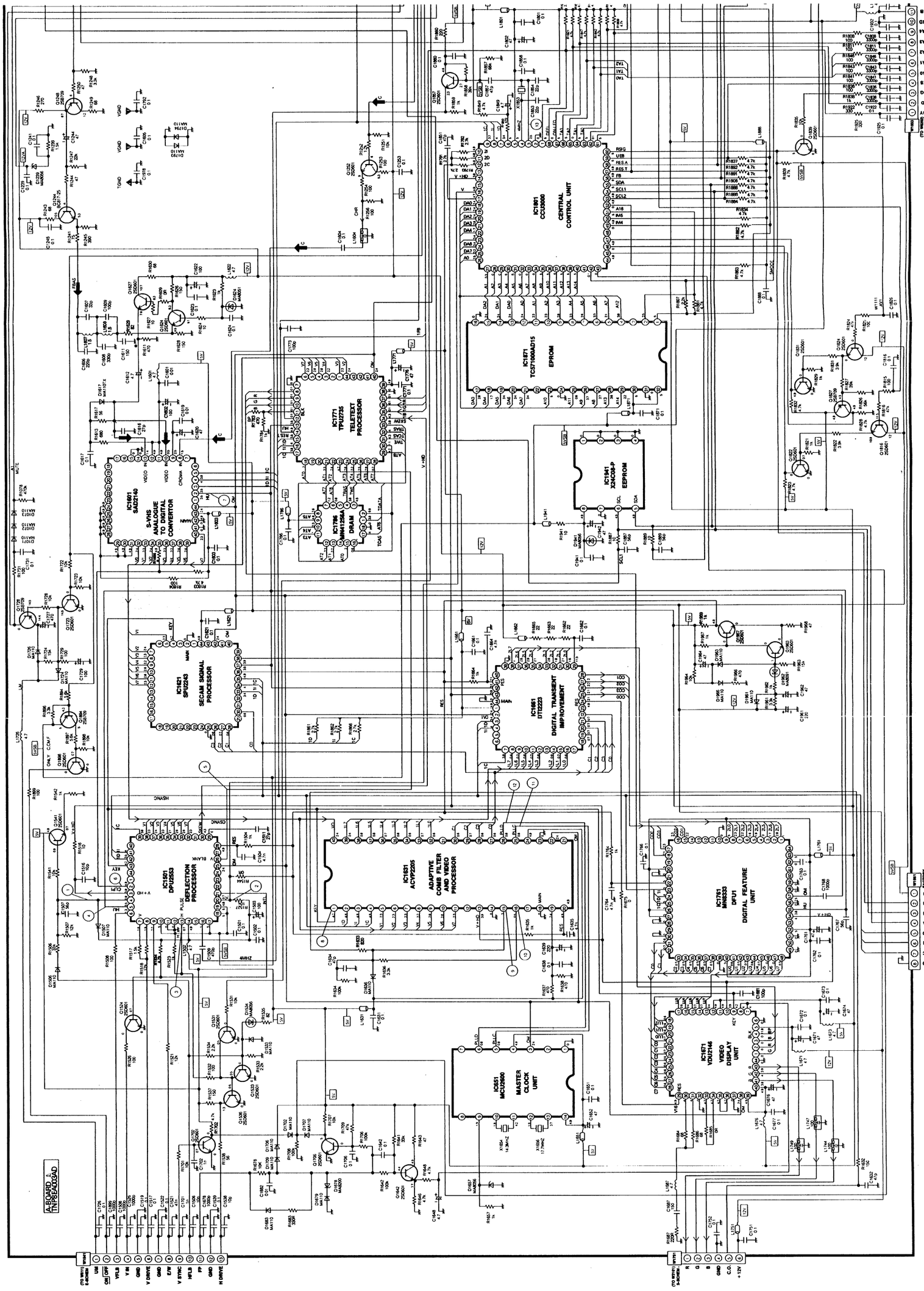
1. Das Schaltnetzteil enthält Bereiche, die direkt mit dem Netz verbunden sind. Diese Bereiche sind im Schalplan mit HOT gekennzeichnet. Alle anderen Schaltungen sin mit COLD gekennzeichnet und Haben keine direkte Verbindung mit dem netz.

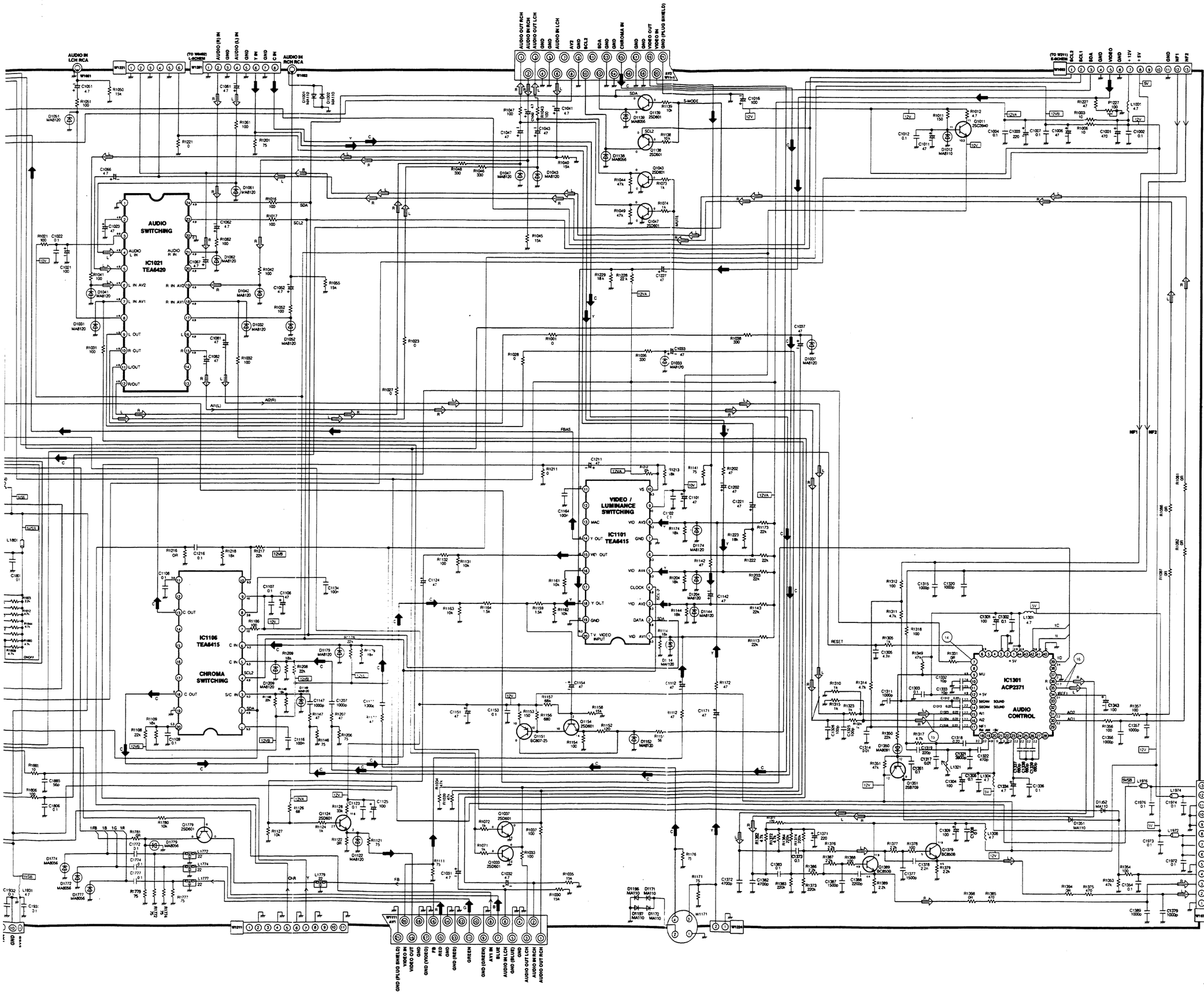
ENV57897G3



TNQ8E0453

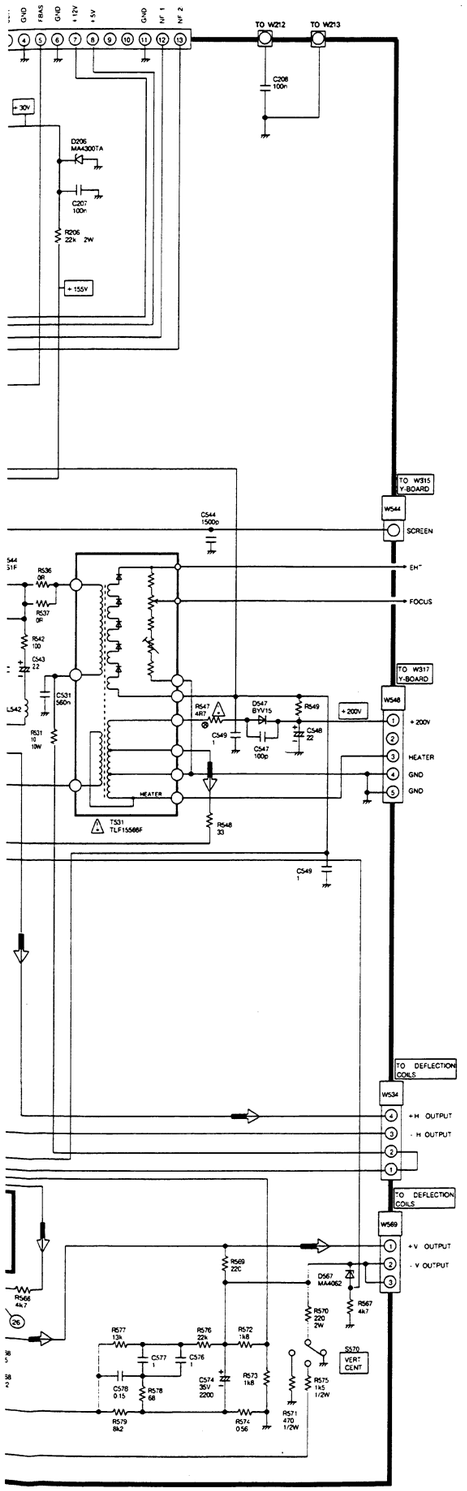


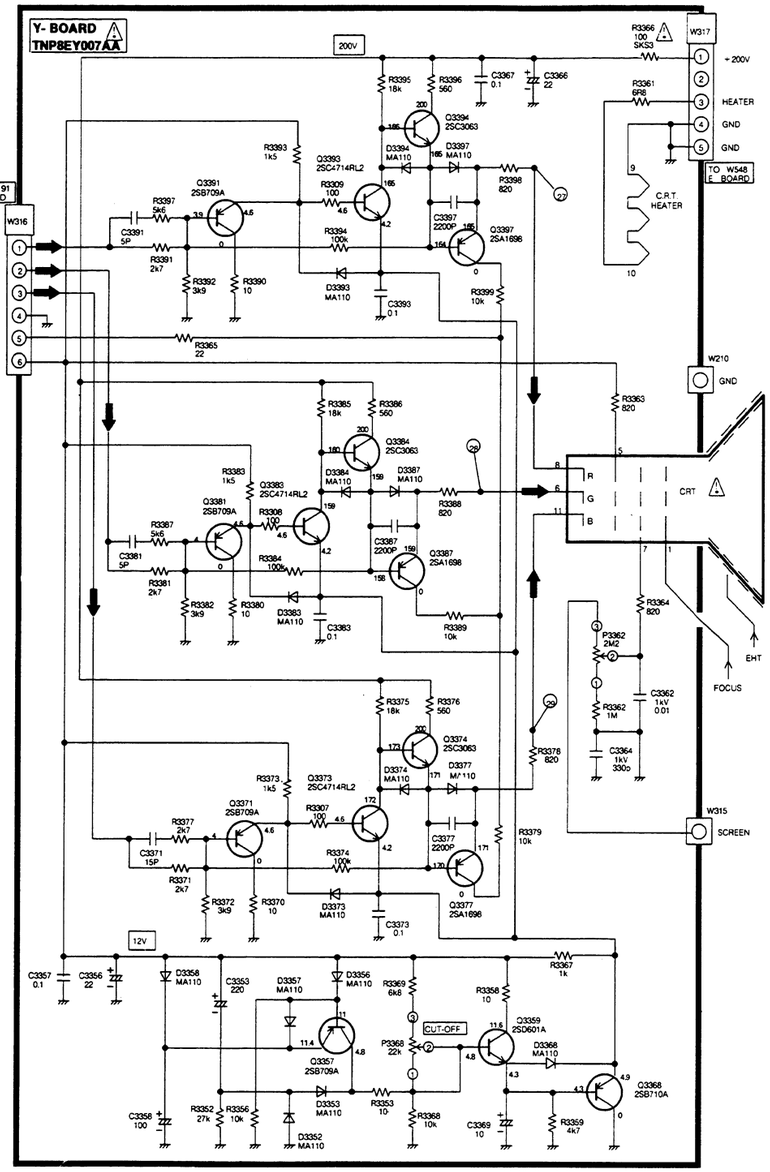

IC1801 CCU3000 CENTRAL CONTROL UNIT
IC1871 TC571000AD15 EPROM
IC1771 TPU2735 TELETEXT PROCESSOR
IC1795 HM41256A DRAM
IC1841 X24C08P EEPROM
IC1801 SAA2140 S-VHS ANALOGUE TO DIGITAL CONVERTOR
IC1421 SPU2243 SECAM SIGNAL PROCESSOR
IC1501 DPU2553 DEFLECTION PROCESSOR
IC1651 DTI2223 DIGITAL TRANSIENT IMPROVEMENT
IC1631 ACVP2205 ADAPTIVE COMB FILTER AND VIDEO PROCESSOR
IC1781 MM5353 DFU1 DIGITAL FEATURE UNIT
IC1671 VDU2146 VIDEO DISPLAY UNIT
IC1851 MCU2500 MASTER CLOCK UNIT
A-BOARD J TNP8EA003AD

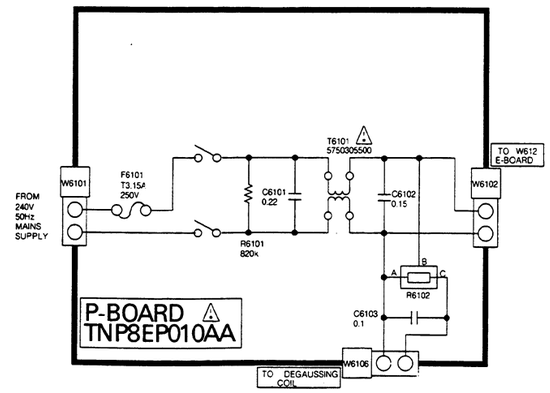

AUDIO SWITCHING
IC1021
TEA6420
VIDEO / LUMINANCE SWITCHING
IC1101
TEA6415
CHROMA SWITCHING
IC1105
TEA6415
IC1301
ACP2371
AUDIO CONTROL
AUDIO IN LCH RCA
AUDIO IN RCH RCA
AUDIO OUT RCH
AUDIO OUT LCH
AUDIO IN LCH
AV2
SCL2
SDA
CHROMA IN
VIDEO OUT
VIDEO IN
S-MODE
MUTE
RESET
FBAS
GND (PLUG SHIELD)
GND (VIDEO)
GND (GREEN)
GND (BLUE)
AV1 IN
BLUE
GREEN
RED
FB
+5V SB
+12V
+8V
+5V
AUDIO (R) OUT
AUDIO (L) OUT

E-BOARD ⚠
TNP8EE002AC

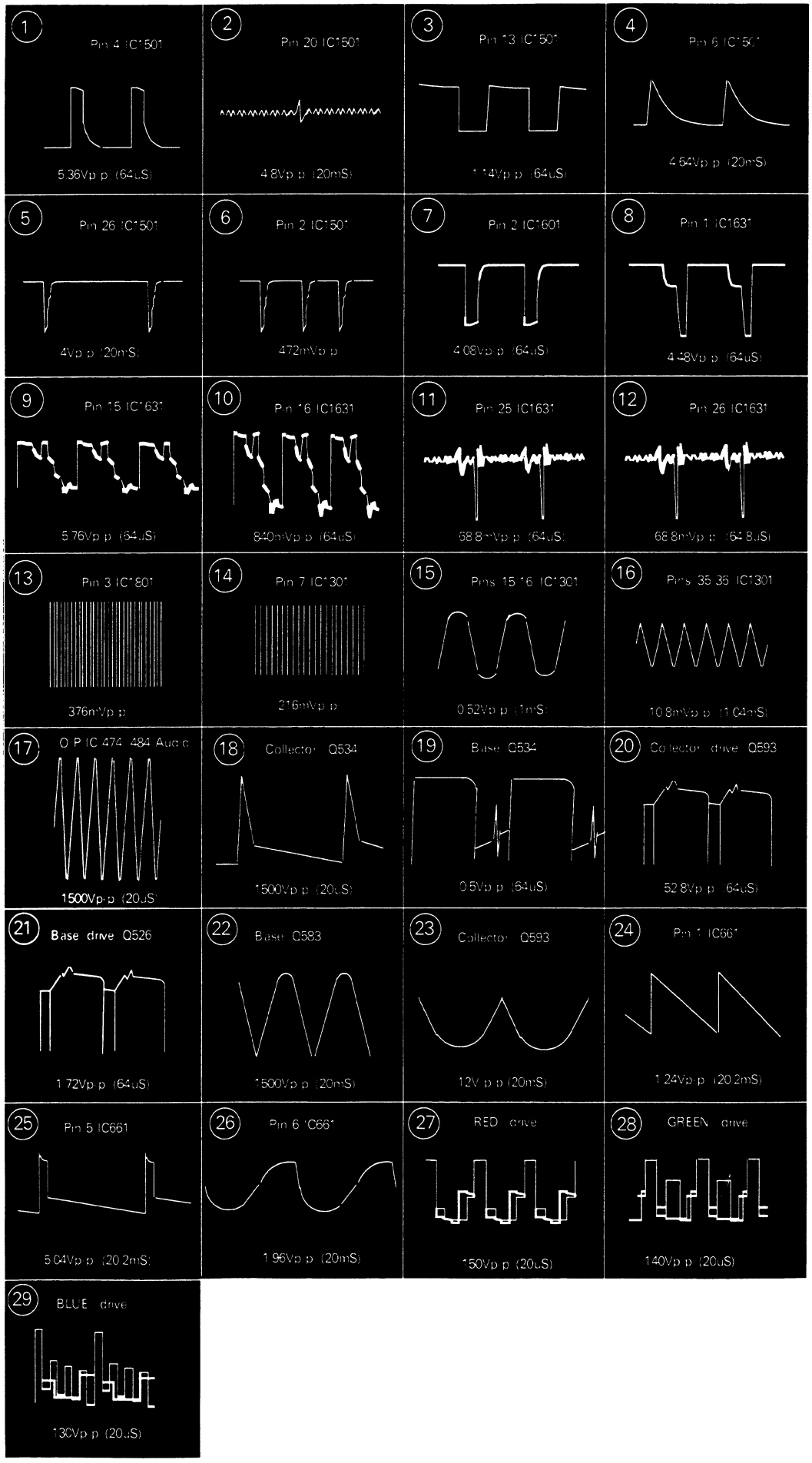
IC474 TDA2030A
AUDIO AMP
IC484 TDA2030A
AUDIO AMP
IC891 AN78L05
5V REG.
IC866 TL431C
IC876 TL431C
IC811 TDA4601
SWITCH-MODE POWER CONTROL
IC561 TDA8175
VERTICAL OUTPUT
ENV57897G3
TY-SVIF2
NOTE : THE B-BOARD IS THE TY-SVIF2 PACK CIRCUIT DIAGRAM.
COLD
HOT

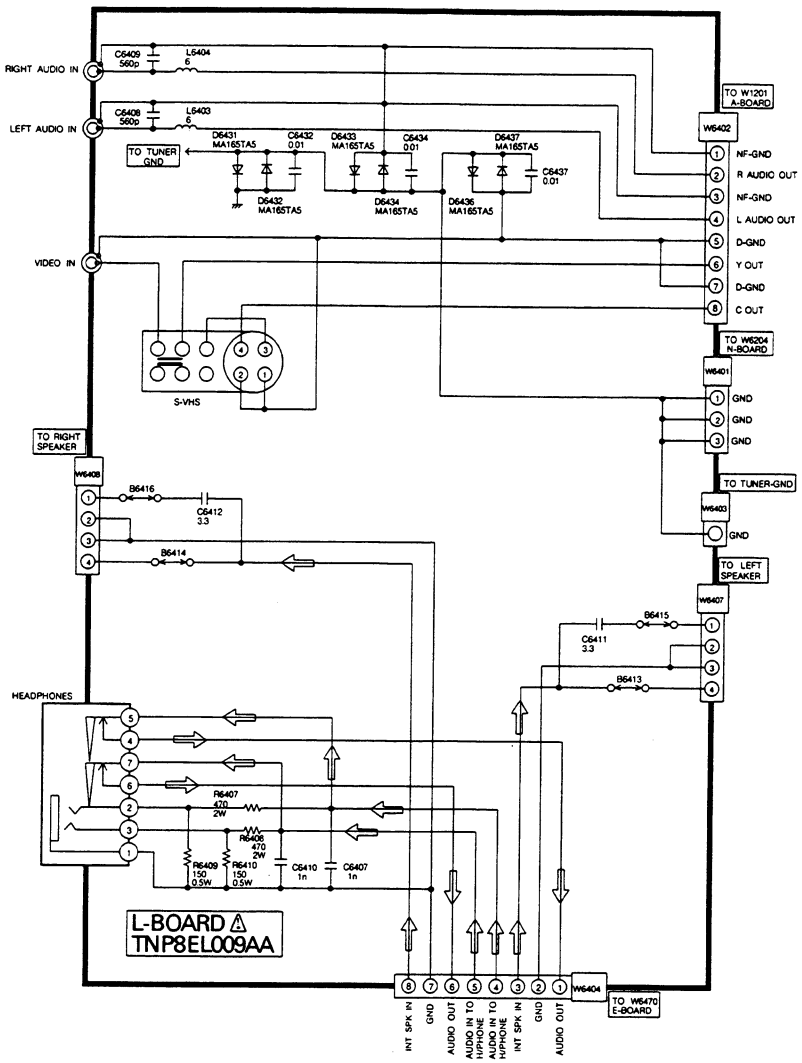

TO W212
TO W213
+30V
D206 MA3007A
C207 100n
R205 22k 2W
+155V
C208 100n
TO W315 Y-BOARD
W544
SCREEN
EHT
FOCUS
TO W317 Y-BOARD
W546
+200V
HEATER
GND
GND
C544 1500
R536 0R
R537 0R
R542 10
C543 22
C531 1500
R531 10 1W
R547 4R7
D547 BYV15
R549
C549 1
C548 22
D547 100n
T531 TLF15566F
R548 33
C549 1
TO DEFLECTION COILS
W534
+H OUTPUT
-H OUTPUT
TO DEFLECTION COILS
W549
+V OUTPUT
-V OUTPUT
R566 4k7
R569 22R
D567 MA4062
R570 220 2W
R567 4k7
R577 13k
R576 22k
R572 1k8
C577 1
C576 1
C578 0.15
R578 68
C574 35V 2200
R573 1k8
R574 0.56
R579 8k2
R571 470 1/2W
S570 VERT CENT
R575 1k5 1/2W

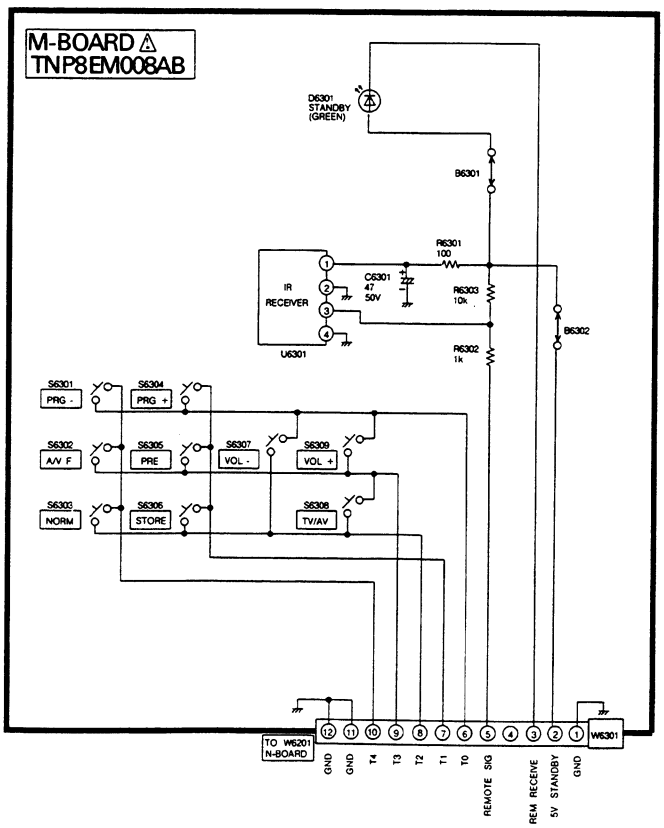

Y- BOARD
TNP8EY007AA
200V
TO W191 S-BOARD
W316
RED
GREEN
BLUE
GND
CUT OFF
+12V
R3365 22
R3366 100 5W3Ω
W317
+200V
HEATER
GND
GND
TO W548 E BOARD
R3361 6R8
C.R.T. HEATER
R3395 18k
R3396 560
C3367 0.1
C3366 22
Q3394 2SC3063
D3394
D3397 MA110
R3398 820
R3393 1k5
Q3393 2SC4714RL2
Q3391 2SB709A
R3397 5k6
C3391 5P
R3391 2k7
R3392 3k9
R3390 10
R3309 100
R3394 100k
D3393 MA110
C3393 0.1
C3397 2200P
Q3397 2SA1698
R3399 10k
W210
GND
R3363 820
R3385 18k
R3386 560
Q3384 2SC3063
R3383 1k5
Q3383 2SC4714RL2
Q3381 2SB709A
R3387 5k6
C3381 5P
R3381 2k7
R3382 3k9
R3380 10
R3308 100
R3384 100k
D3383 MA110
C3383 0.1
D3384 MA110
D3387 MA110
R3388 820
C3387 2200P
Q3387 2SA1698
R3389 10k
R
G
B
CRT
R3364 820
P3362 2M2
R3362 1M
C3362 1kV 0.01
C3364 1kV 330p
EHT
FOCUS
R3375 18k
R3376 560
Q3374 2SC3063
D3374 MA110
D3377 MA110
R3378 820
R3373 1k5
Q3373 2SC4714RL2
Q3371 2SB709A
R3377 2k7
C3371 15P
R3371 2k7
R3372 3k9
R3370 10
R3307 100
R3374 100k
D3373 MA110
C3373 0.1
C3377 2200P
Q3377 2SA1698
R3379 10k
W315
SCREEN
12V
C3357 0.1
C3356 22
D3358 MA110
C3353 220
D3357 MA110
D3356 MA110
R3369 6k8
R3358 10
R3367 1k
Q3359 2SD601A
CUT-OFF
P3368 22k
D3368 MA110
Q3357 2SB709A
Q3368 2SB710A
C3358 100
R3352 27k
R3356 10k
D3353 MA110
R3353 10
R3368 10k
C3369 10
R3359 4k7
D3352 MA110

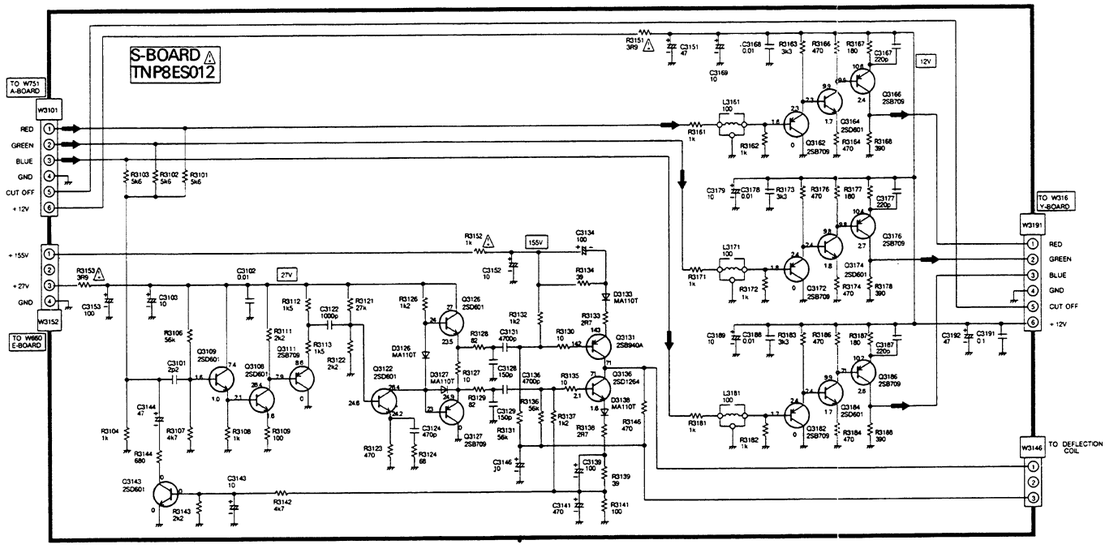

T6101 5750305500
TO W612 E-BOARD
W6101
F6101 T3.15A 250V
W6102
FROM 240V 50Hz MAINS SUPPLY
C6101 0.22
C6102 0.15
R6101 820k
R6102
C6103 0.1
P-BOARD
TNP8EP010AA
W6106
TO DEGAUSSING COIL

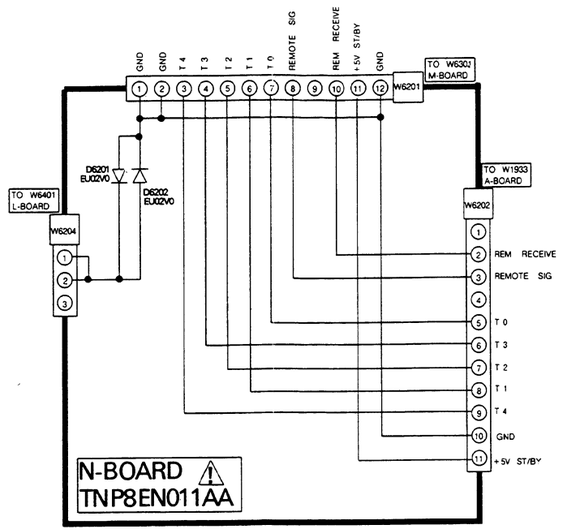
WAVEFORM PATTERN TABLE
SIGNAL TABELLE

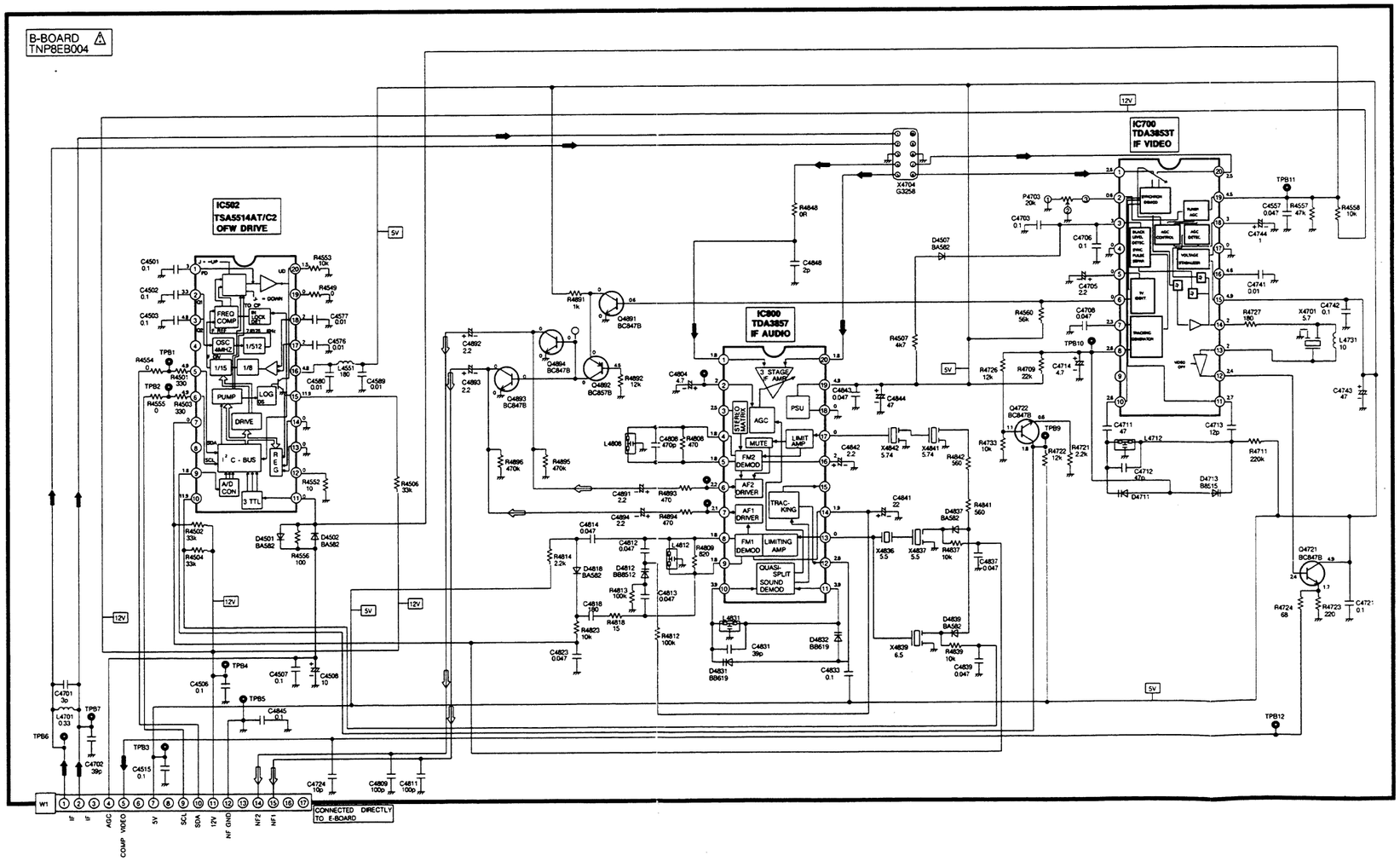



RIGHT AUDIO IN
LEFT AUDIO IN
VIDEO IN
TO TUNER GND
S-VHS
TO W1201 A-BOARD
W6402
NF-GND
R AUDIO OUT
NF-GND
L AUDIO OUT
D-GND
Y OUT
D-GND
C OUT
TO W6204 N-BOARD
W6401
GND
GND
GND
TO TUNER-GND
W6403
GND
TO LEFT SPEAKER
W6407
TO RIGHT SPEAKER
W6408
HEADPHONES
L-BOARD ⚠
TNP8EL009AA
W6404
TO W6470 E-BOARD
INT SPK IN
GND
AUDIO OUT
AUDIO IN TO HI/PHONE
AUDIO IN TO HI/PHONE
INT SPK IN
GND
AUDIO OUT


M-BOARD ⚠
TNP8EM008AB
D6301 STANDBY (GREEN)
IR RECEIVER
U6301
S6301 PRG -
S6304 PRG +
S6302 A/V F
S6305 PRE
S6307 VOL -
S6309 VOL +
S6303 NORM
S6306 STORE
S6308 TV/AV
TO W6201 N-BOARD
W6301
GND
GND
REMOTE SIG
REM RECEIVE
5V STANDBY
GND


S-BOARD
TNP8ES012
TO W751
A-BOARD
W3101
RED
GREEN
BLUE
GND
CUT OFF
+ 12V
+ 155V
+ 27V
GND
W3152
TO W660
E-BOARD
12V
155V
27V
TO W316
Y-BOARD
W3191
RED
GREEN
BLUE
GND
CUT OFF
+ 12V
W3146
TO DEFLECTION
COIL

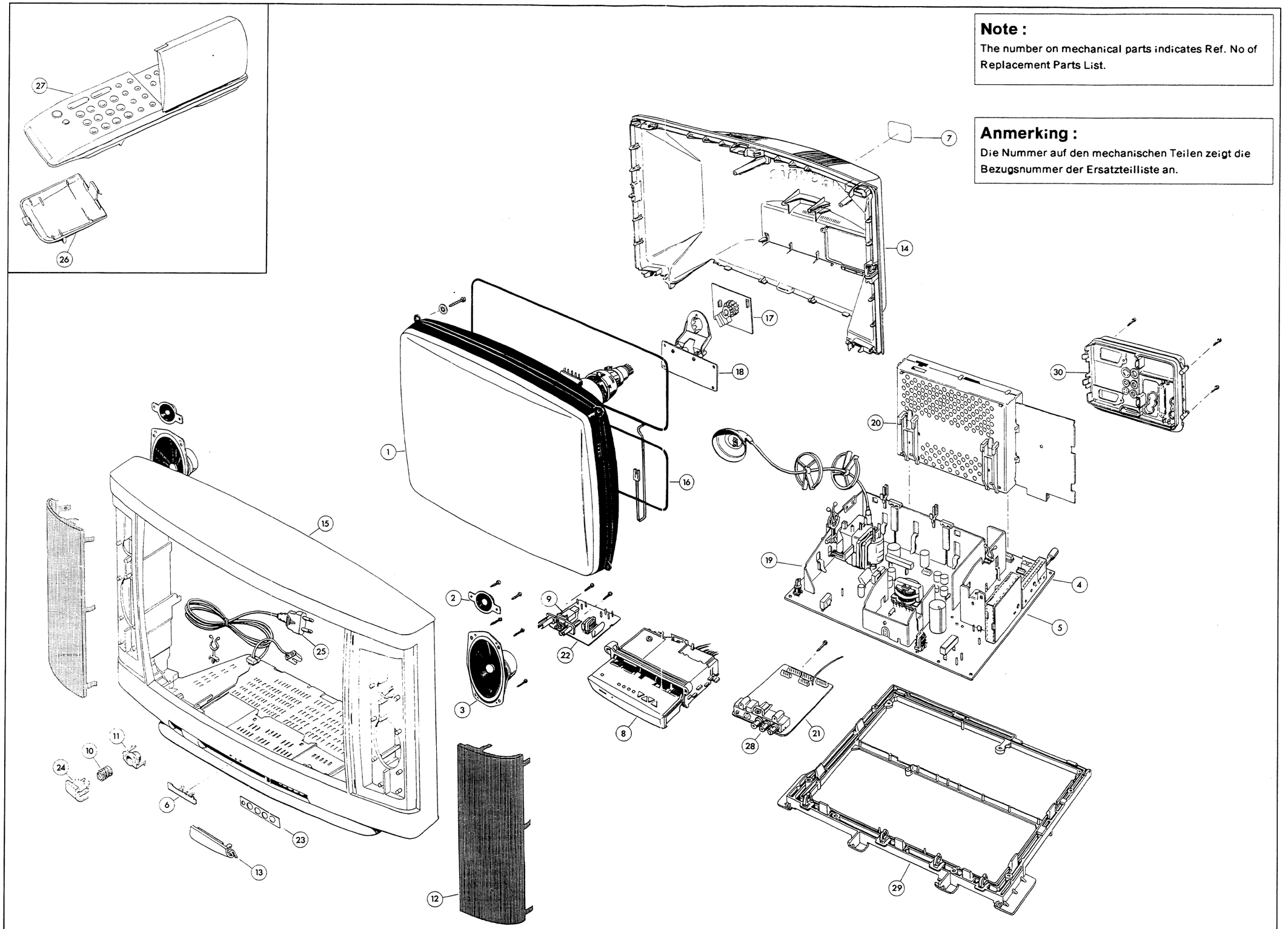

GND
GND
T 4
T 3
T 2
T 1
T 0
REMOTE SIG
REM RECEIVE
+5V ST/BY
GND
TO W6301
M-BOARD
W6201
D6201
EU02V0
D6202
EU02V0
TO W6401
L-BOARD
W6204
TO W1933
A-BOARD
W6202
REM RECEIVE
REMOTE SIG
T 0
T 3
T 2
T 1
T 4
GND
+5V ST/BY
N-BOARD
TNP8EN011AA


B-BOARD
TNP8EB004
IC502
TSA5514AT/C2
OFW DRIVE
IC800
TDA3857
IF AUDIO
IC700
TDA3853T
IF VIDEO
W1
IF
IF
AGC
COMP VIDEO
5V
SCL
SDA
12V
NF GND
NF2
NF1
CONNECTED DIRECTLY
TO E-BOARD

PARTS LOCATION EXPLOSIONSZEICHNUNG

Note :
The number on mechanical parts indicates Ref. No of Replacement Parts List.

Anmerkung :
Die Nummer auf den mechanischen Teilen zeigt die Bezugsnummer der Ersatzteilliste an.



REPLACEMENT PARTS LIST

Important Safety Notice
Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

ERSATZTEILLISTE

Wichtiger Sicherheitshinweis
Teile, die mit einen Hinweis ⚠ gekennzeichnet sind, sind wichtig für die Sicherheit. Solite ein Auswechsein erforderlich sein, sind unbedingt Originalteile einzusetzen.

MISCELLANEOUS COMPONENTS

Ref No.	Part No.	Description
1)	A66EAK252X21	C.R.T. ⚠
2)	EAS5PH570K-G	SPEAKER (TWEETER)
3)	EAS5PH507KAG	SPEAKER (WOOFER)
4)	ENV57897G3	TUNER ⚠
5)	TY-SVIF2	SVIF PACK ⚠
6)	TBM153010	PANASONIC BADGE
7)	TBM8E1187	REAR COVER LABEL
8)	TKK8E00A	TRAY ASSY COMPLETE
9)	ESB99902V	POWER SWITCH
10)	TES8E003	SPRING FOR POWER SWITCH
11)	TKK8E014	SPACER FOR POWER SWITCH
12)	TKP8E1076	SPEAKER NET
13)	TKP8E1074	LID DOOR
14)	TKU8E00131	REAR COVER ⚠
15)	TKY8E013	CABINET ⚠
16)	TK4NXBQG	DEGAUSS COIL
17)	TNP8EY007AA	Y P.C.B. ⚠
18)	TNP8ES012	S P.C.B. ⚠
19)	TNP8EE002AC	E P.C.B. ⚠
20)	TNP8EA003AD	A P.C.B. ⚠
21)	TNP8EL009AA	L P.C.B. ⚠
22)	TNP8EP010AA	P P.C.B. ⚠
23)	TBM8E1162	AV4 LABEL
24)	TBX8E011	POWER BUTTON
25)	TSX5131	AC CORD ⚠
26)	UR51EC749	BATTERY COVER
27)	TNQ8E0453	REMOTE CONTROL
28)	TJB8E004	AV4 TERMINAL BLOCK
29)	TMX8E005	CHASSIS FRAME
30)	TUX8E005	REAR AV PANEL
	TNP8EM008AB	M P.C.B. ⚠
	TNP8EN011AA	N P.C.B. ⚠
	TQB8E0681	INSTRUCTION BOOK ITALY ⚠
	TQB8E0746	INSTRUCTION BOOK GERMANY ⚠
	TQB8E0747	INSTRUCTION BOOK HOLLAND ⚠
	TQB8E0748	INSTRUCTION BOOK SWITZERLAND ⚠
	TNQ2667A	INFRA RED RECEIVER
	TPC8E4307	OUTER CARTON
	TPD8E545	TOP CUSHION
	TPD8E554	BOTTOM CUSHION
	134-21-21	AV1/AV2 21PIN TERMINAL
	YKF51-5325	AV3 S-VHS 4PIN TERMINAL
	YKB11-0867	AV3 RCA TERMINAL R CHANNEL
	YKB11-0866	AV3 RCA TERMINAL L CHANNEL
F656	TR5-T1000	FUSE ⚠
F661	TR5-T2000	FUSE ⚠
F671	TR5-T6300	FUSE ⚠
F681	TR5-T500	FUSE ⚠
F6101	2153.15H	FUSE ⚠
H6101	EYF52BC	FUSE HOLDER ⚠

DIFFERENCE LIST FOR TX-25W3C MISCELLANEOUS COMPONENTS

1)	A59EAK252X21	C.R.T. ⚠
12)	TKP8E1080	SPEAKER NET
14)	TKU8E00132	REAR COVER ⚠
15)	TKY8E014-A	CABINET ⚠
	TPC8E4332	OUTER CARTON
	TPD8E551	TOP CUSHION
	TPD8E552	BOTTOM CUSHION

CAPACITOR

C201	ECEA1CU470	ELECT	16V	47μF
C202	ECQB1H104J	FILM	50V	100nF
C203	ECEA1CU221	ELECT	16V	220μF
C204	ECQB1H104J	FILM	50V	100nF
C206	ECEA1HU010	ELECT	50V	1μF
C207	ECQB1H104J	FILM	50V	100nF
C208	ECQB1H104J	FILM	50V	100nF

Ref No.	Part No.			
C211	ECEA1HU100	ELECT	50V	10μF
C212	ECEA1HUR22	ELECT	50V	0.22μF
C466	ECEA1HU222	ELECT	50V	2200μF
C467	ECKC1H223J	CERAMIC	50V	22nF
C468	ECEA1HU222	ELECT	50V	2200μF
C469	ECKC1H223J	CERAMIC	50V	22nF
C470	ECQB1H223K	FILM	50V	22nF
C471	ECEA1HU010	ELECT	50V	1μF
C472	ECEA1CU220	ELECT	16V	22μF
C474	ECQB1H103J	FILM	50V	10nF
C476	ECEA1HU010	ELECT	50V	1μF
C477	ECQM1H224J	FILM	50V	220nF
C478	ECKC1H222J	CERAMIC	50V	2.2nF
C479	ECQM1H224J	FILM	50V	220nF
C480	ECQB1H223K	FILM	50V	22nF
C481	ECEA1HU010	ELECT	50V	1μF
C482	ECEA1CU220	ELECT	16V	22μF
C484	ECQB1H103J	FILM	50V	10nF
C486	ECEA1HU010	ELECT	50V	1μF
C487	ECQM1H224J	FILM	50V	220nF
C488	ECKC1H222J	CERAMIC	50V	2.2nF
C489	ECQM1H224J	FILM	50V	220nF
C492	ECEA1HU4R7	ELECT	50V	4.7μF
C521	ECEA1HU101	ELECT	50V	100μF
C524	ECQV1H105JZ	FILM	50V	1μF
C527	ECQM2683JZ	FILM	250V	68nF
C531	ECQM2564KZ	FILM	250V	560nF
C534	ECKC3D152J	CERAMIC	2KV	1.5nF ⚠
C536	ECWH12H103J	FILM	1250V	10nF ⚠
C537	ECQF6303JZ	FILM	630V	30nF
C538	ECWF2H374J	FILM	500V	370nF ⚠
C541	ECWF2H904J	FILM	500V	900nF ⚠
C543	ECEA2VU2R2	ELECT	350V	2.2μF
C544	ECKC3D152J	CERAMIC	2KV	1.5nF ⚠
C547	ECKC2H101J	CERAMIC	500V	100pF ⚠
C548	ECEA2EU220	ELECT	250V	22μF
C549	ECEA1HN2R2	ELECT	50V	2.2μF
C557	ECKC2H101J	CERAMIC	500V	100pF ⚠
C558	ECEA1HU222	ELECT	50V	2200μF
C561	ECEA1VFE272Y	ELECT	35V	2700μF
C562	ECQB1H104J	FILM	50V	100nF
C563	ECEA1HU221	ELECT	50V	220μF
C564	ECQB1H473K	FILM	50V	47nF
C567	ECQB1H223K	FILM	50V	22nF
C568	ECQM1H224J	FILM	50V	220nF
C574	ECEA1VU332	ELECT	35V	3300μF
C576	ECQM1H684J	FILM	50V	680nF
C577	ECQV1H105JZ	FILM	50V	1μF
C578	ECQM1H154J	FILM	50V	150nF
C579	ECQB1H472J	FILM	50V	4.7nF
C581	ECEA1HU101	ELECT	50V	100μF
C582	ECQB1H104J	FILM	50V	100nF
C593	ECEA1HGE4R7	ELECT	50V	4.7μF
C594	ECQB1H104J	FILM	50V	100nF
C597	ECQB1H103J	FILM	50V	10nF
C617	ECQM4334JZ	FILM	400V	330nF
C618	ECOS2GA221CA	ELECT	400V	220μF
C622	ECEA1EU101	ELECT	25V	100μF
C623	ECEA1HU101	ELECT	50V	100μF
C626	ECKC3A222J	CERAMIC	1KV	2200pF ⚠
C627	ECQB1H103J	FILM	50V	10nF
C628	ECQB1H104J	FILM	50V	100nF
C629	ECCR1H560J	CERAMIC	50V	56pF
C631	ECEA1CU101	ELECT	16V	100μF
C632	ECCR1H101J	CERAMIC	50V	100pF
C633	ECQB1H103J	FILM	50V	10nF
C634	ECEA1HU010	ELECT	50V	1μF
C636	ECQB1H223K	FILM	50V	22nF
C639	ECKCNS332J	CERAMIC	1.2KV	3.3nF ⚠
C650	ECKC3A102J	CERAMIC	1KV	1nF ⚠

Ref No.	Part No.	Description		
C651	ECEA2EGE470	ELECT	250V	47μF
C652	ECEA2EU470	ELECT	250V	47μF
C656	ECKC2H681J	CERAMIC	500V	680pF ⚠
C657	ECEA1HGE101	ELECT	50V	100μF
C662	ECEA1HU471	ELECT	50V	470μF
C668	ECEA1CU221	ELECT	16V	220μF
C672	ECEA1EGE222	ELECT	25V	2200μF
C673	ECQM1H334J	FILM	50V	330nF
C677	ECEA1CU221	ELECT	16V	220μF
C681	ECEA1HU221	ELECT	50V	220μF
C687	ECEA1HU471	ELECT	50V	470μF
C689	ECQB1H104J	FILM	50V	100nF
C691	ECEA1EU221	ELECT	25V	220μF
C692	ECQM1H334J	FILM	50V	330nF
C693	ECQM1H334J	FILM	50V	330nF
C694	ECEA1CU221	ELECT	16V	220μF
C697	ECEA1HU100	ELECT	50V	10μF
C1001	ECEA1EU471	ELECT	25V	470μF
C1002	ECUV1H104KBW	CERAMIC	50V	100nF
C1003	ECEA1CU221	ELECT	16V	220μF
C1004	ECUV1H104KBW	CERAMIC	50V	100nF
C1006	ECEA1CU470	ELECT	16V	47μF
C1007	ECUV1H104KBW	CERAMIC	50V	100nF
C1011	ECEA1CU470	ELECT	16V	47μF
C1012	ECUV1H104KBW	CERAMIC	50V	100nF
C1016	ECEA1CU101	ELECT	16V	100μF
C1021	ECEA1CU101	ELECT	16V	100μF
C1022	ECUV1H104KBW	CERAMIC	50V	100nF
C1023	ECEA1CU470	ELECT	16V	47μF
C1031	ECEA1HU4R7	ELECT	50V	4.7μF
C1032	ECEA1HU4R7	ELECT	50V	4.7μF
C1033	ECEA1CU470	ELECT	16V	47μF
C1037	ECEA1CU470	ELECT	16V	47μF
C1041	ECEA1HU4R7	ELECT	50V	4.7μF
C1042	ECEA1HU4R7	ELECT	50V	4.7μF
C1043	ECEA1CU470	ELECT	16V	47μF
C1047	ECEA1CU470	ELECT	16V	47μF
C1051	ECEA1HU4R7	ELECT	50V	4.7μF
C1051	ECUV1E104ZFM	S.M. CAP	25V	100nF
C1052	ECEA1HU4R7	ELECT	50V	4.7μF
C1052	ECUV1H102KBN	S.M. CAP	50V	1nF
C1053	ECUV1E683MBH	S.M. CAP	25V	68nF
C1061	ECEA1HU4R7	ELECT	50V	4.7μF
C1062	ECEA1HU4R7	ELECT	50V	4.7μF
C1066	ECEA1HU4R7	ELECT	50V	4.7μF
C1067	ECEA1HU4R7	ELECT	50V	4.7μF
C1081	ECEA1CU470	ELECT	16V	47μF
C1082	ECEA1CU470	ELECT	16V	47μF
C1101	ECEA1CU470	ELECT	16V	47μF
C1102	ECUV1H104KBW	CERAMIC	50V	100nF
C1106	ECEA1CU470	ELECT	16V	47μF
C1107	ECUV1H104KBW	CERAMIC	50V	100nF
C1108	ECUV1H104KBW	CERAMIC	50V	100nF
C1109	ECUV1H104KBW	CERAMIC	50V	100nF
C1112	ECEA1CU470	ELECT	16V	47μF
C1116	ECUV1H104KBW	CERAMIC	50V	100nF
C1123	ECUV1H104KBW	CERAMIC	50V	100nF
C1124	ECEA1CU470	ELECT	16V	47μF
C1125	ECEA1CU101	ELECT	16V	100μF
C1134	ECUV1H104KBW	CERAMIC	50V	100nF
C1142	ECEA1CU470	ELECT	16V	47μF
C1147	ECUV1H102KBM	S.M. CAP	50V	1nF
C1151	ECEA1CU470	ELECT	16V	47μF
C1153	ECUV1H104KBW	CERAMIC	50V	100nF
C1154	ECEA1CU470	ELECT	16V	47μF
C1164	ECUV1H104KBW	CERAMIC	50V	100nF
C1171	ECEA1CU470	ELECT	16V	47μF
C1177	ECUV1H102KBM	S.M. CAP	50V	1nF
C1202	ECEA1CU470	ELECT	16V	47μF
C1207	ECUV1H102KBM	S.M. CAP	50V	1nF
C1211	ECEA1CU470	ELECT	16V	47μF
C1216	ECUV1H104KBW	CERAMIC	50V	100nF
C1221	ECEA1CU470	ELECT	16V	47μF
C1227	ECEA1CU470	ELECT	16V	47μF
C1239	ECUV1H104KBW	CERAMIC	50V	100nF
C1241	ECUV1H104KBW	CERAMIC	50V	100nF
C1244	ECEA1CU470	ELECT	16V	47μF
C1245	ECUV1H104KBW	CERAMIC	50V	100nF
C1253	ECUV1H104KBW	CERAMIC	50V	100nF
C1301	ECEA1CU101	ELECT	16V	100μF
C1302	ECUV1H104KBW	CERAMIC	50V	100nF
C1303	ECUV1H104KBW	CERAMIC	50V	100nF

Ref No.	Part No.	Description		
C1304	ECEA1CU101	ELECT	16V	100μF
C1305	ECUV1H472KBM	CERAMIC	50V	4.7nF
C1306	ECUV1H104KBW	CERAMIC	50V	100nF
C1308	ECUV1H104KBW	CERAMIC	50V	100nF
C1309	ECEA1CU101	ELECT	16V	100μF
C1311	ECUV1H102KBM	S.M. CAP	50V	1nF
C1312	ECQM1H224J	FILM	50V	220nF
C1313	ECQM1H224J	FILM	50V	220nF
C1314	ECYY1H103JCW	CERAMIC	50V	10nF
C1315	ECUV1H102KBM	S.M. CAP	50V	1nF
C1316	ECQM1H224J	FILM	50V	220nF
C1317	ECYY1H103JCW	CERAMIC	50V	10nF
C1318	ECQM1H224J	FILM	50V	220nF
C1319	ECUV1H221JCH	CERAMIC	50V	220pF
C1320	ECUV1H102KBM	S.M. CAP	50V	1nF
C1321	ECUV1H392KBM	CERAMIC	50V	3.9nF
C1322	ECUV1H471JCH	CERAMIC	50V	470pF
C1323	ECQM1H224J	FILM	50V	220nF
C1324	ECQM1H224J	FILM	50V	220nF
C1325	ECUV1H101JCH	CERAMIC	50V	100pF
C1326	ECUV1H101JCH	CERAMIC	50V	100pF
C1332	ECUV1H100DCM	CERAMIC	50V	10pF
C1333	ECUV1H100DCM	CERAMIC	50V	10pF
C1334	ECEA1HU4R7	ELECT	50V	4.7μF
C1336	ECUV1H104KBW	CERAMIC	50V	100nF
C1337	ECUV1H681JCH	CERAMIC	50V	680pF
C1338	ECUV1H681JCH	CERAMIC	50V	680pF
C1339	ECUV1H681JCH	CERAMIC	50V	680pF
C1343	ECEA1CU101	ELECT	16V	100μF
C1351	ECUV1H104KBW	CERAMIC	50V	100nF
C1354	ECUV1H104KBW	CERAMIC	50V	100nF
C1356	ECUV1H102KBM	S.M. CAP	50V	1nF
C1357	ECUV1H102KBM	S.M. CAP	50V	1nF
C1371	ECEA1CU221	ELECT	16V	220μF
C1372	ECUV1H472JCW	CERAMIC	50V	4.7nF
C1373	ECQB1H104J	FILM	50V	100nF
C1377	ECUV1H152JCW	CERAMIC	50V	1.5nF
C1378	ECUV1H222JCW	CERAMIC	50V	2.2nF
C1379	ECUV1H102KBM	S.M. CAP	50V	1nF
C1382	ECUV1H472JCW	CERAMIC	50V	4.7nF
C1383	ECQB1H104J	FILM	50V	100nF
C1387	ECUV1H152JCW	CERAMIC	50V	1.5nF
C1388	ECUV1H222JCW	CERAMIC	50V	2.2nF
C1389	ECUV1H102KBM	S.M. CAP	50V	1nF
C1501	ECUV1H104KBW	CERAMIC	50V	100nF
C1502	ECUV1H104KBW	CERAMIC	50V	100nF
C1503	ECEA1CU101	ELECT	16V	100μF
C1504	ECUV1H472KBM	CERAMIC	50V	4.7nF
C1506	ECUV1H100DCM	CERAMIC	50V	10pF
C1507	ECUV1H560JCM	S.M. CAP	50V	56pF
C1508	ECUV1H102KBM	S.M. CAP	50V	1nF
C1509	ECUV1H471JCH	CERAMIC	50V	470pF
C1511	ECUV1H270JCM	S.M. CAP	50V	27pF
C1516	ECUV1H100DCM	CERAMIC	50V	10pF
C1517	ECUV1H104KBW	CERAMIC	50V	100nF
C1519	ECUV1H104KBW	CERAMIC	50V	100nF
C1521	ECUV1H473KBW	CERAMIC	50V	47nF
C1522	ECUV1H104KBW	CERAMIC	50V	100nF
C1526	ECUV1H102KBM	S.M. CAP	50V	1nF
C1538	ECUV1H100DCM	CERAMIC	50V	10pF
C1539	ECUV1H104KBW	CERAMIC	50V	100nF
C1601	ECUV1H103KBM	CERAMIC	50V	10nF
C1602	ECEA1CU101	ELECT	16V	100μF
C1603	ECUV1H104KBW	CERAMIC	50V	100nF
C1604	ECUV1H104KBW	CERAMIC	50V	100nF
C1605	ECUV1H104KBW	CERAMIC	50V	100nF
C1606	ECUV1H221JCH	CERAMIC	50V	220pF
C1607	ECUV1H330JCM	CERAMIC	50V	33pF
C1608	ECUV1H331JCH	CERAMIC	50V	330pF
C1609	ECUV1H101JCH	CERAMIC	50V	100pF
C1611	ECUV1H151JCH	CERAMIC	50V	150pF
C1612	ECEA1HU4R7	ELECT	50V	4.7μF
C1616	ECUV1H270JCM	S.M. CAP	50V	27pF
C1617	ECUV1H104KBW	CERAMIC	50V	100nF
C1619	ECUV1H103KBM	CERAMIC	50V	10nF
C1620	ECEA1CU470	ELECT	16V	47μF
C1621	ECUV1H104KBW	CERAMIC	50V	100nF
C1622	ECEA1CU101	ELECT	16V	100μF
C1623	ECUV1H104KBW	CERAMIC	50V	100nF
C1624	ECUV1H104KBW	CERAMIC	50V	100nF
C1631	ECUV1H104KBW	CERAMIC	50V	100nF
C1632	ECUV1H470JCM	S.M. CAP	50V	47pF

Ref No.	Part No.	Description		
C1634	ECUV1H470JCM	S.M. CAP	50V	47pF
C1635	ECUV1H472KBM	CERAMIC	50V	4.7nF
C1638	ECUV1H104KBW	CERAMIC	50V	100nF
C1639	ECEA1CU221	ELECT	16V	220μF
C1642	ECUV1H104KBW	CERAMIC	50V	100nF
C1648	ECEA1HU4R7	ELECT	50V	4.7μF
C1651	ECUV1H104KBW	CERAMIC	50V	100nF
C1652	ECEA1CU470	ELECT	16V	47μF
C1661	ECUV1H104KBW	CERAMIC	50V	100nF
C1662	ECUV1H104KBW	CERAMIC	50V	100nF
C1664	ECUV1H472KBM	CERAMIC	50V	4.7nF
C1671	ECEA1CU470	ELECT	16V	47μF
C1672	ECUV1H104KBW	CERAMIC	50V	100nF
C1673	ECUV1H104KBW	CERAMIC	50V	100nF
C1674	ECEA1CU470	ELECT	16V	47μF
C1676	ECEA1CU470	ELECT	16V	47μF
C1677	ECUV1H104KBW	CERAMIC	50V	100nF
C1678	ECUV1H102KBM	S.M. CAP	50V	1nF
C1681	ECUV1H101JCH	CERAMIC	50V	100pF
C1682	ECUV1H103KBM	CERAMIC	50V	10nF
C1687	ECUV1H151JCH	CERAMIC	50V	150pF
C1701	ECUV1H102KBM	S.M. CAP	50V	1nF
C1702	ECUV1H102KBM	S.M. CAP	50V	1nF
C1706	ECUV1H104KBW	CERAMIC	50V	100nF
C1726	ECUV1H104KBW	CERAMIC	50V	100nF
C1727	ECEA1EU471	ELECT	25V	470μF
C1729	ECEA1CU101	ELECT	16V	100μF
C1731	ECUV1H104KBW	CERAMIC	50V	100nF
C1751	ECUV1H104KBW	CERAMIC	50V	100nF
C1752	ECUV1H104KBW	CERAMIC	50V	100nF
C1761	ECEA1CU470	ELECT	16V	47μF
C1762	ECUV1H104KBW	CERAMIC	50V	100nF
C1763	ECUV1H104KBW	CERAMIC	50V	100nF
C1764	ECUV1H472KBM	CERAMIC	50V	4.7nF
C1766	ECUV1H104KBW	CERAMIC	50V	100nF
C1767	ECUV1H560JCM	S.M. CAP	50V	56pF
C1768	ECUV1H102KBM	S.M. CAP	50V	1nF
C1771	ECUV1H104KBW	CERAMIC	50V	100nF
C1772	ECUV1H104KBW	CERAMIC	50V	100nF
C1773	ECUV1H101JCH	CERAMIC	50V	100pF
C1774	ECUV1H104KBW	CERAMIC	50V	100nF
C1776	ECEA1CU470	ELECT	16V	47μF
C1777	ECUV1H104KBW	CERAMIC	50V	100nF
C1786	ECUV1H104KBW	CERAMIC	50V	100nF
C1792	ECUV1H104KBW	CERAMIC	50V	100nF
C1801	ECUV1H104KBW	CERAMIC	50V	100nF
C1802	ECEA1CU470	ELECT	16V	47μF
C1806	ECUV1H104KBW	CERAMIC	50V	100nF
C1808	ECUV1H332KBM	CERAMIC	50V	3.3nF
C1811	ECUV1H332KBM	CERAMIC	50V	3.3nF
C1816	ECUV1H104KBW	CERAMIC	50V	100nF
C1826	ECUV1H104KBW	CERAMIC	50V	100nF
C1836	ECUV1H332KBM	CERAMIC	50V	3.3nF
C1838	ECUV1H332KBM	CERAMIC	50V	3.3nF
C1841	ECUV1H332KBM	CERAMIC	50V	3.3nF
C1843	ECUV1H332KBM	CERAMIC	50V	3.3nF
C1846	ECUV1H332KBM	CERAMIC	50V	3.3nF
C1849	ECEA1HU4R7	ELECT	50V	4.7μF
C1851	ECUV1H470JCM	S.M. CAP	50V	47pF
C1853	ECUV1H220JCM	CERAMIC	50V	22pF
C1854	ECUV1H220JCM	CERAMIC	50V	22pF
C1857	ECUV1H470JCM	S.M. CAP	50V	47pF
C1858	ECUV1H104KBW	CERAMIC	50V	100nF
C1860	ECUV1H104KBW	CERAMIC	50V	100nF
C1861	ECUV1H104KBW	CERAMIC	50V	100nF
C1871	ECUV1H104KBW	CERAMIC	50V	100nF
C1885	ECUV1H560JCM	S.M. CAP	50V	56pF
C1887	ECUV1H560JCM	S.M. CAP	50V	56pF
C1888	ECUV1H104KBW	CERAMIC	50V	100nF
C1889	ECUV1H560JCM	S.M. CAP	50V	56pF
C1899	ECUV1H102KBM	S.M. CAP	50V	1nF
C1922	ECUV1H104KBW	CERAMIC	50V	100nF
C1925	ECUV1H104KBW	CERAMIC	50V	100nF
C1931	ECUV1H104KBW	CERAMIC	50V	100nF
C1932	ECUV1H104KBW	CERAMIC	50V	100nF
C1941	ECUV1H104KBW	CERAMIC	50V	100nF
C1942	ECEA1CU470	ELECT	16V	47μF
C1961	ECEA1CU221	ELECT	16V	220μF
C1962	ECEA1CU470	ELECT	16V	47μF
C1964	ECEA1CU470	ELECT	16V	47μF
C1972	ECUV1H104KBW	CERAMIC	50V	100nF
C1973	ECUV1H104KBW	CERAMIC	50V	100nF

Ref No.	Part No.	Description		
C1974	ECUV1H104KBW	CERAMIC	50V	100nF
C1976	ECUV1H104KBW	CERAMIC	50V	100nF
C1978	ECUV1H104KBW	CERAMIC	50V	100nF
C3101	ECUV1H030CCM	CERAMIC	50V	30pF
C3102	ECUV1H103KBM	CERAMIC	50V	10nF
C3103	ECEA1HU100	ELECT	50V	10μF
C3122	ECUV1H102KBM	S.M. CAP	50V	1nF
C3124	ECUV1H471JCH	CERAMIC	50V	470pF
C3128	ECUV1H151JCH	CERAMIC	50V	150pF
C3129	ECUV1H151JCH	CERAMIC	50V	150pF
C3131	ECKC2H472J	CERAMIC	500V	4.7nF △
C3134	ECEA1CU101	ELECT	16V	100μF
C3136	ECKC2H472J	CERAMIC	500V	4.7nF △
C3139	ECEA1CU101	ELECT	16V	100μF
C3141	ECEA1CU471	ELECT	16V	470μF
C3143	ECEA1CU100	ELECT	16V	10μF
C3144	ECEA1CU470	ELECT	16V	47μF
C3146	ECEA2EU220	ELECT	250V	22μF
C3152	ECEA2EU220	ELECT	250V	22μF
C3153	ECEA1JU101	ELECT	63V	100μF
C3167	ECUV1H470JCM	S.M. CAP	50V	47pF
C3168	ECUV1H103KBM	CERAMIC	50V	10nF
C3169	ECEA1CU100	ELECT	16V	10μF
C3177	ECUV1H470JCM	S.M. CAP	50V	47pF
C3178	ECUV1H103KBM	CERAMIC	50V	10nF
C3179	ECEA1CU100	ELECT	16V	10μF
C3187	ECUV1H470JCM	S.M. CAP	50V	47pF
C3188	ECUV1H103KBM	CERAMIC	50V	10nF
C3189	ECEA1CU100	ELECT	16V	10μF
C3191	ECUV1H104KBW	CERAMIC	50V	100nF
C3192	ECEA1CU470	ELECT	16V	47μF
C3353	ECEA1CU221	ELECT	16V	220μF
C3356	ECEA1CU220	ELECT	16V	22μF
C3357	ECUV1H104KBW	CERAMIC	50V	100nF
C3358	ECEA1CU101	ELECT	16V	100μF
C3362	HBX223SBBCHO	CAPACITOR		
C3364	ECKC3A331J	CERAMIC	1000V	330pF △
C3366	ECEA2EU220	ELECT	250V	22μF
C3367	ECQM2104KZ	FILM	250V	100nF
C3369	ECEA1CU100	ELECT	16V	10μF
C3371	ECUV1H150JCM	S.M. CAP	50V	15pF
C3373	ECUV1H104KBW	CERAMIC	50V	100nF
C3377	ECUV1H222JCW	CERAMIC	50V	2.2nF
C3381	ECUV1H050CCM	CERAMIC	50V	5pF
C3383	ECUV1H104KBW	CERAMIC	50V	100nF
C3387	ECUV1H222JCW	CERAMIC	50V	2.2nF
C3391	ECUV1H050CCM	CERAMIC	50V	5pF
C3393	ECUV1H104KBW	CERAMIC	50V	100nF
C3397	ECUV1H222JCW	CERAMIC	50V	2.2nF
C4501	ECUV1H104KBW	CERAMIC	50V	100nF
C4502	ECUV1H104KBW	CERAMIC	50V	100nF
C4503	ECUV1H104KBW	CERAMIC	50V	100nF
C4506	ECUV1H104KBW	CERAMIC	50V	100nF
C4507	ECUV1H104KBW	CERAMIC	50V	100nF
C4508	ECEA1CKA100	ELECT	16V	10μF
C4515	ECUV1H104KBW	CERAMIC	50V	100nF
C4557	ECUV1H473ZFX	CERAMIC	50V	47nF
C4576	ECUV1H103KBM	CERAMIC	50V	10nF
C4577	ECUV1H103KBM	CERAMIC	50V	10nF
C4580	ECUV1H103KBM	CERAMIC	50V	10nF
C4589	ECUV1H103KBG	CERAMIC	50V	10nF
C4701	ECUV1H030CCN	S.M. CAP	50V	3.0pF
C4702	ECUV1H390JCM	CERAMIC	50V	39pF
C4703	ECUV1H104KBW	CERAMIC	50V	100nF
C4705	ECEA1HKA2R2	ELECT	50V	2.2μF
C4706	ECUV1H104KBW	CERAMIC	50V	100nF
C4708	ECUV1H473ZFX	CERAMIC	50V	47nF
C4711	ECUV1H470JCG	CERAMIC	50V	47pF
C4712	ECUV1H470JCG	CERAMIC	50V	47pF
C4713	ECUV1H120JCM	S.M. CAP	50V	12pF
C4714	ECEA1HKA4R7	ELECT	50V	4.7μF
C4721	ECUV1H104KBW	CERAMIC	50V	100nF
C4724	ECUV1H100DCN	S.M. CAP	50V	10pF
C4741	ECUV1H103KBM	CERAMIC	50V	10nF
C4742	ECUV1H104ZFX	CERAMIC	50V	100nF
C4743	ECEA1CKA470	ELECT	16V	47μF
C4744	ECEA50Z1	ELECT	50V	1μF
C4746	ECUV1H050DCM	CERAMIC	50V	5pF
C4804	ECEA1EKA4R7	ELECT	25V	4.7μF
C4808	ECUV1H471JCX	CERAMIC	50V	470pF
C4809	ECUV1H101JCG	CERAMIC	50V	100pF
C4811	ECUV1H101JCG	CERAMIC	50V	100pF

Ref No.	Part No.	Description		
C4812	ECUV1H473ZFX	CERAMIC	50V	47nF
C4813	ECUV1H473ZFX	CERAMIC	50V	47nF
C4814	ECUV1H473KBW	CERAMIC	50V	47nF
C4818	ECUV1H181JCG	CERAMIC	50V	180pF
C4823	ECUV1H473ZFX	CERAMIC	50V	47nF
C4831	ECUV1H390JCG	CERAMIC	50V	39pF
C4833	ECUV1H104KBW	CERAMIC	50V	100nF
C4837	ECUV1H473KBW	CERAMIC	50V	47nF
C4839	ECUV1H473KBW	CERAMIC	50V	47nF
C4841	ECEA1CKA220	ELECT	16V	22μF
C4842	ECEA1HKA2R2	ELECT	50V	2.2μF
C4843	ECUV1H473ZFX	CERAMIC	50V	47nF
C4844	ECEA1CKA470	ELECT	16V	47μF
C4845	ECUV1H104KBW	CERAMIC	50V	100nF
C4847	ECUV1H100DCN	S.M. CAP	50V	10pF
C4848	ECUV1H020CCN	S.M. CAP	50V	20pF
C4891	ECEA1HKA2R2	ELECT	50V	2.2μF
C4892	ECEA1HKA2R2	ELECT	50V	2.2μF
C4893	ECEA1HKA2R2	ELECT	50V	2.2μF
C4894	ECEA1HKA2R2	ELECT	50V	2.2μF
C6101	ECQU2A224MN	FILM	250V	220nF
C6102	ECQU2A154MN	FILM	250V	150nF
C6103	ECQM2A104KZ	FILM	250V	100nF
C6301	ECEA1HFS470	ELECT	50V	47μF
C6407	ECKC1H102J	CERAMIC	50V	1000pF
C6408	ECCR1H561J	CERAMIC	50V	560pF
C6409	ECCR1H561J	CERAMIC	50V	560pF
C6410	ECKC1H102J	CERAMIC	50V	1000pF
C6411	ECEA50Y3R3	ELECT	50V	3.3μF
C6412	ECEA50Y3R3	ELECT	50V	3.3μF
C6432	ECKC1H102J	CERAMIC	50V	1000pF
C6434	ECKC1H103JB	CERAMIC	50V	10nF
C6437	ECKC1H103JB	CERAMIC	50V	10nF

DIODES

D206	MA4300	DIODE
D477	RGP10AF	DIODE
D478	RGP10AF	DIODE
D487	RGP10AF	DIODE
D488	RGP10AF	DIODE
D491	MA167TA5	DIODE
D526	MA165TA5	DIODE
D527	EU02	DIODE
D536	ERB0615	DIODE
D537	TVSRU2AM	DIODE
D544	TVSES1FV1	DIODE
D547	TVSAU02V0	DIODE
D557	TVSRU2AM	DIODE
D561	ERA15-02V3	DIODE
D562	MA165TA5	DIODE
D563	MA165TA5	DIODE
D567	MA4062	DIODE
D613	RBV4-08	DIODE
D622	EU02	DIODE
D624	ERA15-02V3	DIODE
D636	EU02	DIODE
D651	RU4BLF-L1	DIODE
D656	EU02	DIODE
D661	RU3NLFC4	DIODE
D663	MA4120	DIODE
D665	MA165TA5	DIODE
D671	MA750LT	DIODE
D681	EU02	DIODE
D686	RU30LF302	DIODE
D687	RU30LF302	DIODE
D694	TVSQB106TV1	DIODE
D1001	MA110TX	DIODE
D1002	MA110TX	DIODE
D1012	MA8110MTX	DIODE
D1031	MA8120TX	DIODE
D1032	MA8120TX	DIODE
D1033	MA8120TX	DIODE
D1037	MA8120TX	DIODE
D1041	MA8120TX	DIODE
D1042	MA8120TX	DIODE
D1043	MA8120TX	DIODE
D1047	MA8120TX	DIODE
D1051	MA8120TX	DIODE
D1052	MA8120TX	DIODE
D1061	MA8120TX	DIODE
D1062	MA8120TX	DIODE

Ref No.	Part No.	Description
D1071	MA110TX	DIODE
D1072	MA110TX	DIODE
D1073	MA110TX	DIODE
D1114	MA8120TX	DIODE
D1122	MA8120TX	DIODE
D1138	MA8056TX	DIODE
D1139	MA8056TX	DIODE
D1144	MA8120TX	DIODE
D1149	MA8120TX	DIODE
D1152	MA8120TX	DIODE
D1171	MA110TX	DIODE
D1172	MA110TX	DIODE
D1174	MA8120TX	DIODE
D1179	MA8120TX	DIODE
D1196	MA110TX	DIODE
D1197	MA110TX	DIODE
D1204	MA8120TX	DIODE
D1209	MA8120TX	DIODE
D1239	MA8056TX	DIODE
D1261	MA110TX	DIODE
D1350	MA8091TX	DIODE
D1351	MA110TX	DIODE
D1352	MA110TX	DIODE
D1506	MA110TX	DIODE
D1507	MA110TX	DIODE
D1533	MA110TX	DIODE
D1534	MA8056TX	DIODE
D1617	MA110TX	DIODE
D1624	MA8051MTX	DIODE
D1636	MA110TX	DIODE
D1657	MA8056TX	DIODE
D1678	MA8200TX	DIODE
D1679	MA110TX	DIODE
D1683	MA110TX	DIODE
D1702	MA110TX	DIODE
D1706	MA110TX	DIODE
D1707	MA110TX	DIODE
D1709	MA110TX	DIODE
D1724	MA110TX	DIODE
D1726	MA110TX	DIODE
D1772	MA8056TX	DIODE
D1774	MA8056TX	DIODE
D1777	MA8056TX	DIODE
D1779	MA8056TX	DIODE
D1793	MA110TX	DIODE
D1794	MA110TX	DIODE
D1941	MA8056TX	DIODE
D1961	MA110TX	DIODE
D1962	MA8091TX	DIODE
D1963	MA110TX	DIODE
D1966	MA110TX	DIODE
D3126	MA110TX	DIODE
D3127	MA110TX	DIODE
D3133	MA110TX	DIODE
D3138	MA110TX	DIODE
D3352	MA110TX	DIODE
D3353	MA110TX	DIODE
D3356	MA110TX	DIODE
D3357	MA110TX	DIODE
D3358	MA110TX	DIODE
D3368	MA110TX	DIODE
D3373	MA110TX	DIODE
D3374	MA110TX	DIODE
D3377	MA110TX	DIODE
D3383	MA110TX	DIODE
D3384	MA110TX	DIODE
D3387	MA110TX	DIODE
D3393	MA110TX	DIODE
D3394	MA110TX	DIODE
D3397	MA110TX	DIODE
D4501	BA582	DIODE
D4502	BA582	DIODE
D4507	BA582	DIODE
D4711	BB515E7908	DIODE
D4713	BB515E7908	DIODE
D4812	BB512E7263	DIODE
D4818	BA582	DIODE
D4831	BB619E7908	DIODE
D4832	BB619E7908	DIODE
D4837	BA582	DIODE
D4839	BA582	DIODE
D6201	EU02	DIODE

Ref No.	Part No.	Description
D6202	EU02	DIODE
D6301	LN81RPHL	DIODE
D6431	EU02	DIODE
D6432	EU02	DIODE
D6433	EU02	DIODE
D6434	EU02	DIODE
D6436	EU02	DIODE
D6437	EU02	DIODE

INTEGRATED CIRCUITS

I474	TDA2030A	AUDIO AMP
I484	TDA2030A	AUDIO AMP
I561	TDA8175	VERTICAL O/P
I611	TDA4601	POWER SUPPLY
I666	TL431ACLP	VOLTAGE STABILISER
I676	TL431ACLP	VOLTAGE STABILISER
I691	AN78L05TA	5V REGULATOR
I1021	TEA6420	AUDIO SWITCH
I1101	TEA6415-A	LUMINANCE SWITCH
I1106	TEA6415-A	CHROMA SWITCH
I1301	ACP2371	AUDIO CONTROL PROCESSOR
I1501	DPU2553	DEFLECTION PROCESSING UNIT
I1601	SAD2140-09	S-VHS A TO D CONVERTER
I1621	SPU2243	SECAM PROCESSOR UNIT
I1631	ACVP2205	COMB FILTER/VIDEO PROCESSOR
I1651	MCU2600	MAIN CLOCK UNIT
I1661	DTI2223	DIGITAL TRANSIENT IMPROVE
I1671	VDU2146-07	VIDEO DISPLAY UNIT
I1761	MN8333	DIGITAL FEATURES UNIT
I1771	TPU2735	TELETEXT PROCESSING UNIT
I1786	MN41256AJ-08	DYNAMIC RAM
I1801	CCU3000-13	CENTRAL CONTROL UNIT
I1871	TC571000AD15	EPROM
I1941	X24C08-PR	EEPROM
I4502	TSA5514AT/C2	SIF TUNING
I4700	TDA3853T	IF VIDEO
I4800	TDA3857	IF AUDIO

COILS

L201	ELER6R8KA	COIL
L202	ELER6R8KA	COIL
L203	ELER100KA	COIL
L204	ELER220KA	COIL
L479	5770206400	COIL
L489	5770206400	COIL
L521	ELER220KA	COIL
L538	297-020466	COIL
L541	ELH5L421	COIL
L542	ELC08D055	COIL
L581	ELER220KA	COIL
L594	297-017696	COIL
L618	2982-021762	COIL
L623	298-19711	COIL
L624	ELER2R2KA	CAPACITOR
L626	298-82858	COIL
L636	ELER4R7KA	COIL
L651	298-79726	TRANSISTOR
L686	EXCELSA35T	COIL
L687	EXCELSA35T	COIL
L1001	ELEV4R7KA	COIL
L1301	ELEV4R7KA	COIL
L1304	ELEV4R7KA	COIL
L1308	ELEV4R7KA	COIL
L1321	297-012549	COIL
L1321	297-12549	COIL
L1502	ELEV4R7KA	COIL
L1601	ELEV4R7KA	COIL
L1603	EXCELDR35V	COIL
L1604	EXCEMT101BT	COIL
L1607	ELEMV1R5MA	COIL
L1609	ELEMV1R5MA	COIL
L1621	EXCELDR35V	COIL
L1622	ELEV4R7KA	COIL
L1631	EXCELDR35V	COIL
L1651	EXCELDR35V	COIL
L1661	EXCELDR35V	COIL
L1662	EXCELDR35V	COIL
L1671	ELEV4R7KA	COIL

Ref No.	Part No.	Description
L1673	ELEV4R7KA	COIL
L1676	ELEV4R7KA	COIL
L1687	ELEV4R7KA	COIL
L1726	ELEV4R7KA	COIL
L1744	EXCEMT101BT	COIL
L1747	EXCEMT101BT	COIL
L1749	EXCEMT101BT	COIL
L1751	EXCELDR35V	COIL
L1761	EXCELDR35V	COIL
L1771	EXCELDR35V	COIL
L1772	EXCEMT220BT	COIL
L1774	EXCEMT220BT	COIL
L1777	EXCEMT220BT	COIL
L1779	EXCEMT220BT	COIL
L1786	EXCELDR35V	COIL
L1801	ELEV4R7KA	COIL
L1871	EXCELDR35V	COIL
L1888	ELEV4R7KA	COIL
L1931	ELEV4R7KA	COIL
L1941	EXCELDR35V	COIL
L1972	EXCELDR35V	COIL
L1974	EXCELDR35V	COIL
L1976	EXCELDR35V	COIL
L3161	SDL-4101	COIL
L3171	SDL-4101	COIL
L3181	SDL-4101	COIL
L3361	ELC08D097	COIL
L4551	ELESN181KA	COIL
L4701	ELESNR33MA	COIL
L4712	EIV7EN168B	COIL
L4731	ELESN100KA	COIL
L4808	EIS7EN045B	COIL
L4812	EIS7EN045B	COIL
L4831	EIV7EN168B	COIL
L6403	ELEBT6R8KA	COIL
L6404	ELEBT6R8KA	COIL

TRANSISTORS

Q496	2SC3311ATA	TRANSISTOR
Q498	2SC3311ATA	TRANSISTOR
Q526	2SC3944RLB	TRANSISTOR
Q534	S2000AFLBLOE	TRANSISTOR
Q583	2SC3311ATA	TRANSISTOR
Q585	2SA1309ATA	TRANSISTOR
Q587	2SA1309ATA	TRANSISTOR
Q593	2SC1318-S	TRANSISTOR
Q594	2SD1265A	TRANSISTOR
Q624	S2000AFLBLOE	TRANSISTOR
Q663	BUZ71AF	TRANSISTOR
Q674	BUZ71AF	TRANSISTOR
Q681	2SA1309ATA	TRANSISTOR
Q682	BC638	TRANSISTOR
Q697	2SA1309ATA	TRANSISTOR
Q1011	2SC3940TA-R	TRANSISTOR
Q1033	2SD601A-X	TRANSISTOR
Q1037	2SD601A-X	TRANSISTOR
Q1043	2SD601A-X	TRANSISTOR
Q1047	2SD601A-X	TRANSISTOR
Q1124	2SD601A-X	TRANSISTOR
Q1138	2SD601A-X	TRANSISTOR
Q1139	2SD601A-X	TRANSIStor
Q1154	2SD601A-X	TRANSISTOR
Q1244	BC817-25	TRANSISTOR
Q1248	2SB709A-X	TRANSISTOR
Q1252	2SD601A-X	TRANSISTOR
Q1351	2SB709A-X	TRANSISTOR
Q1379	BC850B	TRANSISTOR
Q1389	BC850B	TRANSISTOR
Q1524	2SD601A-X	TRANSISTOR
Q1531	2SD601A-X	TRANSISTOR
Q1533	2SD601A-X	TRANSISTOR
Q1536	2SD601A-X	TRANSISTOR
Q1541	2SD601A-X	TRANSISTOR
Q1624	2SD601A-X	TRANSISTOR
Q1627	2SD601A-X	TRANSISTOR
Q1642	2SD601A-X	TRANSISTOR
Q1702	2SD601A-X	TRANSISTOR
Q1706	2SD601A-X	TRANSISTOR
Q1723	2SD601A-X	TRANSISTOR
Q1728	2SB709A-X	TRANSISTOR

Ref No.	Part No.	Description
Q1779	2SD601A-X	TRANSISTOR
Q1816	2SD601A-X	TRANSISTOR
Q1822	2SD601A-X	TRANSISTOR
Q1824	2SD601A-X	TRANSISTOR
Q1827	2SB709A-X	TRANSISTOR
Q1831	2SD601A-X	TRANSISTOR
Q1839	2SD601A-X	TRANSISTOR
Q1857	2SD601A-X	TRANSISTOR
Q1894	2SB709A-X	TRANSISTOR
Q1898	2SD601A-X	TRANSISTOR
Q1963	2SD601A-X	TRANSISTOR
Q1967	2SD601A-X	TRANSISTOR
Q3108	2SD601A-X	TRANSISTOR
Q3109	2SD601A-X	TRANSISTOR
Q3111	2SB709A-X	TRANSISTOR
Q3122	2SD601A-X	TRANSISTOR
Q3126	2SD601A-X	TRANSISTOR
Q3127	2SB709A-X	TRANSISTOR
Q3131	2SB940ALB	TRANSISTOR
Q3136	2SD1264ALB	TRANSISTOR
Q3143	2SD601A-X	TRANSISTOR
Q3162	2SB709A-X	TRANSISTOR
Q3164	2SD601A-X	TRANSISTOR
Q3166	2SB709A-X	TRANSISTOR
Q3169	2SB709A-X	TRANSISTOR
Q3172	2SB709A-X	TRANSISTOR
Q3174	2SD601A-X	TRANSISTOR
Q3176	2SB709A-X	TRANSISTOR
Q3179	2SB709A-X	TRANSISTOR
Q3182	2SB709A-X	TRANSISTOR
Q3184	2SD601A-X	TRANSISTOR
Q3186	2SB709A-X	TRANSISTOR
Q3189	2SB709A-X	TRANSISTOR
Q3357	2SB709A-X	TRANSISTOR
Q3359	2SD601A-X	TRANSISTOR
Q3368	2SB710A-XR	TRANSISTOR
Q3371	2SB709A-X	TRANSISTOR
Q3373	2SC4714RL2	TRANSISTOR
Q3374	2SC3063RL	TRANSISTOR
Q3377	2SA1698RL	TRANSISTOR
Q3381	2SB709A-X	TRANSISTOR
Q3383	2SC4714RL2	TRANSISTOR
Q3384	2SC3063RL	TRANSISTOR
Q3387	2SA1698RL	TRANSISTOR
Q3391	2SB709A-X	TRANSISTOR
Q3393	2SC4714RL2	TRANSISTOR
Q3394	2SC3063RL	TRANSISTOR
Q3397	2SA1698RL	TRANSISTOR
Q4721	BC847B	TRANSISTOR
Q4891	BC847B	TRANSISTOR
Q4892	BC857B	TRANSISTOR
Q4893	BC847B	TRANSISTOR
Q4894	BC847B	TRANSISTOR

RESISTORS

Ref No.	Part No.	Description			
R207	ERD25TJ223	CARBON	0.25W	5%	22KΩ
R208	ERO25CKF1000	FILM	0.25W	5%	100Ω ⚠
R466	ERG3SJ471	FILM	3W	5%	470Ω
R468	ERG3SJ471	FILM	3W	5%	470Ω
R471	ERD25TJ471	CARBON	0.25W	5%	470Ω
R472	ERD25TJ104	CARBON	0.25W	5%	100KΩ
R473	ERD25TJ102	CARBON	0.25W	5%	1KΩ
R474	ERD25TJ683	CARBON	0.25W	5%	68KΩ
R477	ERD25TJ683	CARBON	0.25W	5%	68KΩ
R479	ERDS1TJ1R0	CARBON	0.5W	5%	1Ω
R481	ERD25TJ471	CARBON	0.25W	5%	470Ω
R482	ERD25TJ104	CARBON	0.25W	5%	100KΩ
R483	ERD25TJ102	CARBON	0.25W	5%	1KΩ
R484	ERD25TJ683	CARBON	0.25W	5%	68KΩ
R487	ERD25TJ683	CARBON	0.25W	5%	68KΩ
R488	ERD25TJ683	CARBON	0.25W	5%	68KΩ
R489	ERDS1TJ1R0	CARBON	0.5W	5%	1Ω
R491	ERQ14AJ100	METAL	0.25W	5%	10Ω ⚠
R492	ERD25TJ102	CARBON	0.25W	5%	1KΩ
R496	ERD25TJ102	CARBON	0.25W	5%	1KΩ
R498	ERD25TJ102	CARBON	0.25W	5%	1KΩ
R521	ERQ14AJ3R3	METAL	0.25W	5%	3R3Ω ⚠
R526	ERD25TJ560	CARBON	0.25W	5%	56Ω
R527	ERDS1TJ153	CARBON	0.5W	5%	15KΩ
R528	ERDS1TJ153	CARBON	0.5W	5%	15KΩ
R529	ERDS1TJ153	CARBON	0.5W	5%	15KΩ
R530	ERDS1TJ153	CARBON	0.5W	5%	15KΩ
R531	ERF10ZJ100	WIREWOUND	10W	5%	10Ω ⚠
R532	ERW2PKR47	WIREWOUND	2W	10%	47Ω ⚠
R533	ERDS1TJ220	CARBON	0.5W	5%	22Ω
R536	ERDS2TC0V	WIRE LINK			
R537	ERDS2TC0V	WIRE LINK			
R538	ERDS2TC0V	WIRE LINK			
R539	ERDS2TC0V	WIRE LINK			
R541	ERG1ANJ152	FILM	1W	5%	1K5Ω
R542	ERQ14AJ101	METAL	0.25W	5%	100Ω ⚠
R547	ERQ12HJ4R7	METAL	0.5W	5%	4R7Ω ⚠
R548	ERQ14AJ330	METAL	0.25W	5%	33Ω ⚠
R549	ERO50PKF1403	FILM	0.5W	1%	140KΩ ⚠
R557	ERQ12HKR22	FUSIBLE	0.5W	5%	0.22Ω ⚠
R561	ERQ12HJ1R5	FUSIBLE	0.5W	5%	1.5Ω ⚠
R563	ERD25TJ104	CARBON	0.25W	5%	100KΩ
R564	ERD25TJ223	CARBON	0.25W	5%	22KΩ
R566	ERO25CKF4701	FILM	0.25W	1%	4K7Ω ⚠
R567	ERD25TJ472	CARBON	0.25W	5%	4K7Ω
R568	ERD25TJ1R5	CARBON	0.25W	5%	1R5Ω
R569	ERDS1TJ221	CARBON	0.5W	5%	220Ω
R570	ERG2SJ221	FILM	2W	5%	220Ω
R571	ERDS1TJ680	CARBON	0.5W	5%	68Ω
R573	ERO25CKF1801	FILM	0.25W	1%	180Ω ⚠
R574	ERW12PTKR56C	WIREWOUND	0.5W	10%	0.56Ω ⚠
R575	ERDS1TJ561	CARBON	0.5W	5%	560Ω
R576	ERO25CKF2202	FILM	0.25W	1%	22KΩ ⚠
R577	ERO25CKF1302	FILM	0.25W	1%	13KΩ ⚠
R578	ERO25CKF68R0	FILM	0.25W	1%	68Ω ⚠
R579	ERO25CKF1002	METAL	0.25W	1%	10KΩ ⚠
R583	ERO25CKF1000	FILM	0.25W	1%	100Ω ⚠
R584	ERO25CKF2201	FILM	0.25W	1%	2K2Ω ⚠
R585	ERD25TJ472	CARBON	0.25W	5%	4K7Ω
R586	ERO25CKF1002	METAL	0.25W	1%	10KΩ ⚠
R587	ERO25CKF3901	METAL	0.25W	1%	3K9Ω ⚠
R588	ERO25CKF8201	METAL	0.25W	1%	8K2Ω ⚠
R589	ERO25CKF3302	FILM	0.25W	1%	33KΩ ⚠
R591	ERO25CKF3301	FILM	0.25W	1%	3K3Ω ⚠
R592	ERO25CKF1501	FILM	0.25W	1%	1K5Ω ⚠
R593	ERO25CKF5601	FILM	0.25W	1%	5K6Ω ⚠
R594	ERD25TJ102	CARBON	0.25W	5%	1KΩ
R597	ERD25TJ105	CARBON	0.25W	5%	1MΩ
R599	ERD25TJ472	CARBON	0.25W	5%	4K7Ω
R612	ERC12ZGK335D	SOLID	0.5W	10%	3M3Ω
R613	ERF7ZK1R0	WOUND	7W	10%	1Ω ⚠
R621	ERG2ANJ472	METAL	2W	5%	4K7Ω
R623	ERX12SJR47	FILM	12W	5%	0.47Ω
R624	ERDS1TJ220	CARBON	0.5W	5%	22Ω
R625	ERG3ANJ682	METAL	3W	5%	6K8Ω
R626	ERD50TJ564	CARBON	0.5W	5%	560KΩ
R627	ERD50TJ564	CARBON	0.5W	5%	560KΩ
R628	ERD50TJ474	CARBON	0.5W	5%	470KΩ
R629	ERD25TJ682	CARBON	0.25W	5%	6K8Ω
R631	ERD25TJ221	CARBON	0.25W	5%	220Ω
R632	ERO25CKF1201	FILM	0.25W	1%	1K2Ω ⚠
R633	ERO25CKF1202	FILM	0.25W	1%	12KΩ ⚠
R636	ERD25TJ103	CARBON	0.25W	5%	10KΩ
R651	ERDS1TJ104	CARBON	0.5W	5%	100KΩ
R667	ERD25TJ472	CARBON	0.25W	5%	4K7Ω
R668	ERO25CKF1802	FILM	0.25W	1%	18KΩ ⚠
R669	ERO25CKF4701	FILM	0.25W	1%	4K7Ω ⚠
R674	ERD25TJ223	CARBON	0.25W	5%	22KΩ
R676	ERD25TJ472	CARBON	0.25W	5%	4K7Ω
R677	ERO25CKF1002	METAL	0.25W	1%	10KΩ ⚠
R678	ERO25CKF1002	METAL	0.25W	1%	10KΩ ⚠
R679	ERDS1TJ474	CARBON	0.5W	5%	470KΩ
R681	ERDS1TJ3R3	CARBON	0.5W	5%	3R3Ω
R682	ERD25TJ330	CARBON	0.25W	5%	33Ω
R683	ERD25TJ471	CARBON	0.25W	5%	470Ω
R684	ERD25TJ103	CARBON	0.25W	5%	10KΩ
R686	NKS2	FUSABLE	0.25W	5%	0.1Ω
R687	NKS2	FUSABLE	0.25W	5%	0.1Ω
R691	ERQ14AJ330	METAL	0.25W	5%	33Ω ⚠
R696	ERD25TJ473	CARBON	0.25W	5%	47KΩ
R697	ERD25TJ103	CARBON	0.25W	5%	10KΩ
R698	ERD25TJ102	CARBON	0.25W	5%	1KΩ
R1001	ERJ8GCY0R00	WIRE LINK			
R1003	ERQ14AJ100	METAL	0.25W	5%	10Ω ⚠
R1006	ERQ14AJ100	METAL	0.25W	5%	10Ω ⚠
R1011	ERJ8GCYJ151	FILM	0.125W	5%	150Ω

Ref No.	Part No.	Description				
R1012	ERQ14AJ4R7	METAL	0.25W	5%	4R7Ω	⚠
R1016	ERJ8GCYJ101	FILM	0.125W	5%	100Ω	
R1017	ERJ8GCYJ101	FILM	0.125W	5%	100Ω	
R1021	ERQ14AJ101	METAL	0.25W	5%	100Ω	⚠
R1023	ERJ8GCY0R00	WIRE LINK				
R1027	ERJ8GCY0R00	WIRE LINK				
R1028	ERJ8GCY0R00	WIRE LINK				
R1030	ERJ8GCYJ153	FILM	0.125W	5%	15KΩ	
R1031	ERJ8GCYJ101	FILM	0.125W	5%	100Ω	
R1032	ERJ8GCYJ101	FILM	0.125W	5%	100Ω	
R1033	ERJ8GCYJ101	FILM	0.125W	5%	100Ω	
R1034	ERJ8GCYJ473	FILM	0.125W	5%	47KΩ	
R1035	ERJ8GCYJ153	FILM	0.125W	5%	15KΩ	
R1036	ERJ8GCYJ331	FILM	0.125W	5%	330Ω	
R1037	ERJ8GCYJ101	FILM	0.125W	5%	100Ω	
R1038	ERJ8GCYJ331	FILM	0.125W	5%	330Ω	
R1039	ERJ8GCYJ473	FILM	0.125W	5%	47KΩ	
R1040	ERJ8GCYJ153	FILM	0.125W	5%	15KΩ	
R1041	ERJ8GCYJ101	FILM	0.125W	5%	100Ω	
R1042	ERJ8GCYJ101	FILM	0.125W	5%	100Ω	
R1043	ERJ8GCYJ101	FILM	0.125W	5%	100Ω	
R1044	ERJ8GCYJ473	FILM	0.125W	5%	47KΩ	
R1045	ERJ8GCYJ153	FILM	0.125W	5%	15KΩ	
R1046	ERJ8GCYJ331	FILM	0.125W	5%	330Ω	
R1047	ERJ8GCYJ101	FILM	0.125W	5%	100Ω	
R1048	ERJ8GCYJ331	FILM	0.125W	5%	330Ω	
R1049	ERJ8GCYJ473	FILM	0.125W	5%	47KΩ	
R1050	ERJ8GCYJ153	FILM	0.125W	5%	15KΩ	
R1051	ERJ8GCYJ101	FILM	0.125W	5%	100Ω	
R1052	ERJ8GCYJ101	FILM	0.125W	5%	100Ω	
R1053	ERJ6GEYJ560	S.M. CARB	0.1W	5%	56Ω	
R1054	ERJ6GEYJ394	S.M. CARB	0.1W	5%	390KΩ	
R1055	ERJ8GCYJ153	FILM	0.125W	5%	15KΩ	
R1061	ERJ8GCYJ101	FILM	0.125W	5%	100Ω	
R1062	ERJ8GCYJ101	FILM	0.125W	5%	100Ω	
R1063	ERJ8GCYJ153	FILM	0.125W	5%	15KΩ	
R1064	ERJ8GCYJ153	FILM	0.125W	5%	15KΩ	
R1071	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ	
R1072	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ	
R1073	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ	
R1074	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ	
R1078	ERJ8GCYJ474	FILM	0.125W	5%	470KΩ	
R1081	ERJ8GCY0R00	WIRE LINK				
R1082	ERJ8GCY0R00	WIRE LINK				
R1086	ERJ8GCY0R00	WIRE LINK				
R1087	ERJ8GCY0R00	WIRE LINK				
R1106	ERJ8GCYJ101	FILM	0.125W	5%	100Ω	
R1108	ERJ8GCYJ223	FILM	0.125W	5%	22KΩ	
R1109	ERJ8GCYJ183	FILM	0.125W	5%	18KΩ	
R1111	ERJ8GCYJ750	FILM	0.125W	5%	75Ω	
R1112	ERJ8GCYJ470	FILM	0.125W	5%	47Ω	
R1113	ERJ8GCYJ223	FILM	0.125W	5%	22KΩ	
R1114	ERJ8GCYJ183	FILM	0.125W	5%	18KΩ	
R1121	ERJ8GCYJ750	FILM	0.125W	5%	75Ω	
R1122	ERJ8GCY0R00	WIRE LINK				
R1124	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ	
R1126	ERJ8GCYJ680	FILM	0.125W	5%	68Ω	
R1127	ERJ8GCYJ103	FILM	0.125W	5%	10KΩ	
R1128	ERJ8GCYJ333	FILM	0.125W	5%	33KΩ	
R1131	ERJ8GCYJ103	FILM	0.125W	5%	10KΩ	
R1132	ERJ8GCYJ101	FILM	0.125W	5%	100Ω	
R1138	ERJ8GCYJ103	FILM	0.125W	5%	10KΩ	
R1139	ERJ8GCYJ103	FILM	0.125W	5%	10KΩ	
R1141	ERJ8GCYJ750	FILM	0.125W	5%	75Ω	
R1142	ERJ8GCYJ470	FILM	0.125W	5%	47Ω	
R1143	ERJ8GCYJ223	FILM	0.125W	5%	22KΩ	
R1144	ERJ8GCYJ183	FILM	0.125W	5%	18KΩ	
R1146	ERJ8GCYJ750	FILM	0.125W	5%	75Ω	
R1147	ERJ8GCYJ470	FILM	0.125W	5%	47Ω	
R1148	ERJ8GCYJ223	FILM	0.125W	5%	22KΩ	
R1149	ERJ8GCYJ183	FILM	0.125W	5%	18KΩ	
R1151	ERJ8GCYJ560	FILM	0.125W	5%	56Ω	
R1152	ERJ8GCYJ121	FILM	0.125W	5%	120Ω	
R1153	ERJ8GCYJ151	FILM	0.125W	5%	150Ω	
R1154	ERJ8GCYJ101	FILM	0.125W	5%	100Ω	
R1156	ERJ8GCYJ681	FILM	0.125W	5%	680Ω	
R1157	ERJ8GCYJ683	FILM	0.125W	5%	68KΩ	
R1158	ERJ8GCYJ153	FILM	0.125W	5%	15KΩ	
R1159	ERJ8GCYJ152	FILM	0.125W	5%	1K5Ω	
R1161	ERJ8GCYJ103	FILM	0.125W	5%	10KΩ	
R1162	ERJ8GCYJ103	FILM	0.125W	5%	10KΩ	
R1163	ERJ8GCYJ103	FILM	0.125W	5%	10KΩ	

Ref No.	Part No.	Description			
R1164	ERJ8GCYJ152	FILM	0.125W	5%	1K5Ω
R1171	ERJ8GCYJ750	FILM	0.125W	5%	75Ω
R1172	ERJ8GCYJ470	FILM	0.125W	5%	47Ω
R1173	ERJ8GCYJ223	FILM	0.125W	5%	22KΩ
R1174	ERJ8GCYJ183	FILM	0.125W	5%	18KΩ
R1176	ERJ8GCYJ750	FILM	0.125W	5%	75Ω
R1177	ERJ8GCYJ470	FILM	0.125W	5%	47Ω
R1178	ERJ8GCYJ223	FILM	0.125W	5%	22KΩ
R1179	ERJ8GCYJ183	FILM	0.125W	5%	18KΩ
R1201	ERJ8GCYJ750	FILM	0.125W	5%	75Ω
R1202	ERJ8GCYJ470	FILM	0.125W	5%	47Ω
R1203	ERJ8GCYJ223	FILM	0.125W	5%	22KΩ
R1204	ERJ8GCYJ183	FILM	0.125W	5%	18KΩ
R1206	ERJ8GCYJ750	FILM	0.125W	5%	75Ω
R1207	ERJ8GCYJ470	FILM	0.125W	5%	47Ω
R1208	ERJ8GCYJ223	FILM	0.125W	5%	22KΩ
R1209	ERJ8GCYJ183	FILM	0.125W	5%	18KΩ
R1211	ERJ8GCY0R00	WIRE LINK			
R1212	ERJ8GCYJ223	FILM	0.125W	5%	22KΩ
R1213	ERJ8GCYJ183	FILM	0.125W	5%	18KΩ
R1216	ERJ8GCY0R00	WIRE LINK			
R1217	ERJ8GCYJ223	FILM	0.125W	5%	22KΩ
R1218	ERJ8GCYJ183	FILM	0.125W	5%	18KΩ
R1221	ERJ8GCY0R00	WIRE LINK			
R1222	ERJ8GCYJ223	FILM	0.125W	5%	22KΩ
R1223	ERJ8GCYJ183	FILM	0.125W	5%	18KΩ
R1227	ERJ8GCYJ470	FILM	0.125W	5%	47Ω
R1228	ERJ8GCYJ223	FILM	0.125W	5%	22KΩ
R1229	ERJ8GCYJ183	FILM	0.125W	5%	18KΩ
R1239	ERJ8GCYJ152	FILM	0.125W	5%	1K5Ω
R1241	ERJ8GCYJ750	FILM	0.125W	5%	75Ω
R1243	ERJ8GCYJ680	FILM	0.125W	5%	68Ω
R1244	ERJ8GCYJ470	FILM	0.125W	5%	47Ω
R1245	ERJ8GCYJ391	FILM	0.125W	5%	390Ω
R1246	ERJ8GCYJ271	FILM	0.125W	5%	270Ω
R1247	ERJ8GCYJ223	FILM	0.125W	5%	22KΩ
R1248	ERJ8GCYJ332	FILM	0.125W	5%	3K3Ω
R1249	ERJ8GCYJ680	FILM	0.125W	5%	68Ω
R1250	ERJ8GCYJ470	FILM	0.125W	5%	47Ω
R1251	ERJ8GCYJ103	FILM	0.125W	5%	10KΩ
R1252	ERJ8GCYJ122	FILM	0.125W	5%	1K2Ω
R1253	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R1254	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R1256	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R1305	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R1310	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R1311	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1312	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R1314	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1315	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R1317	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1318	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R1323	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R1324	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R1331	ERJ8GCY0R00	WIRE LINK			
R1343	ERJ8GCYJ683	FILM	0.125W	5%	68KΩ
R1349	ERJ8GCYJ473	FILM	0.125W	5%	47KΩ
R1350	ERJ8GCYJ223	FILM	0.125W	5%	22KΩ
R1351	ERJ8GCYJ473	FILM	0.125W	5%	47KΩ
R1353	ERJ8GCYJ473	FILM	0.125W	5%	47KΩ
R1354	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R1356	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R1357	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R1371	ERJ8GCYJ471	FILM	0.125W	5%	470Ω
R1372	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1373	ERJ8GCYJ224	FILM	0.125W	5%	220KΩ
R1374	ERJ8GCYJ224	FILM	0.125W	5%	220KΩ
R1375	ERJ8GCYJ471	FILM	0.125W	5%	470Ω
R1376	ERJ8GCYJ222	FILM	0.125W	5%	2K2Ω
R1377	ERJ8GCYJ222	FILM	0.125W	5%	2K2Ω
R1378	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R1379	ERJ8GCYJ222	FILM	0.125W	5%	2K2Ω
R1382	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1383	ERJ8GCYJ224	FILM	0.125W	5%	220KΩ
R1384	ERJ8GCYJ224	FILM	0.125W	5%	220KΩ
R1385	ERJ8GCYJ471	FILM	0.125W	5%	470Ω
R1386	ERJ8GCYJ222	FILM	0.125W	5%	2K2Ω
R1387	ERJ8GCYJ222	FILM	0.125W	5%	2K2Ω
R1388	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R1389	ERJ8GCYJ222	FILM	0.125W	5%	2K2Ω
R1391	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1394	ERJ8GCY0R00	WIRE LINK			

Ref No.	Part No.	Description			
R1398	ERJ8GCY0R00	WIRE LINK			
R1504	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R1506	ERJ8GCYJ333	FILM	0.125W	5%	33KΩ
R1507	ERJ8GCYJ123	FILM	0.125W	5%	12KΩ
R1508	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R1516	ERJ8GCYJ100	FILM	0.125W	5%	10Ω
R1517	ERJ8GCYJ152	FILM	0.125W	5%	1K5Ω
R1518	ERJ8GCYJ123	FILM	0.125W	5%	12KΩ
R1521	ERJ8GCYJ123	FILM	0.125W	5%	12KΩ
R1523	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R1524	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1526	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R1527	ERJ8GCYJ103	FILM	0.125W	5%	10KΩ
R1531	ERJ8GCYJ103	FILM	0.125W	5%	10KΩ
R1532	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R1533	ERJ8GCYJ222	FILM	0.125W	5%	2K2Ω
R1534	ERJ8GCYJ222	FILM	0.125W	5%	2K2Ω
R1535	ERJ8GCYJ820	FILM	0.125W	5%	82Ω
R1537	ERJ8GCYJ151	FILM	0.125W	5%	150Ω
R1538	ERJ8GCYJ560	FILM	0.125W	5%	56Ω
R1541	ERJ8GCYJ103	FILM	0.125W	5%	10KΩ
R1542	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R1544	ERJ8GCY0R00	WIRE LINK			
R1603	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1604	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R1605	ERJ8GCY0R00	WIRE LINK			
R1609	ERJ8GCY0R00	WIRE LINK			
R1611	ERJ8GCYJ471	FILM	0.125W	5%	470Ω
R1613	ERJ8GCYJ681	FILM	0.125W	5%	680Ω
R1617	ERJ8GCYJ560	FILM	0.125W	5%	56Ω
R1623	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R1624	ERJ8GCYJ100	FILM	0.125W	5%	10Ω
R1626	ERJ8GCYJ151	FILM	0.125W	5%	150Ω
R1627	ERJ8GCYJ100	FILM	0.125W	5%	10Ω
R1628	ERJ8GCYJ151	FILM	0.125W	5%	150Ω
R1629	ERJ8GCYJ820	FILM	0.125W	5%	82Ω
R1630	ERJ8GCYJ680	FILM	0.125W	5%	68Ω
R1632	ERJ8GCYJ151	FILM	0.125W	5%	150Ω
R1633	ERJ8GCYJ821	FILM	0.125W	5%	820Ω
R1634	ERJ8GCYJ104	FILM	0.125W	5%	100KΩ
R1635	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R1636	ERJ8GCYJ332	FILM	0.125W	5%	3K3Ω
R1637	ERJ8GCYJ471	FILM	0.125W	5%	470Ω
R1638	ERJ8GCYJ471	FILM	0.125W	5%	470Ω
R1641	ERJ8GCYJ333	FILM	0.125W	5%	33KΩ
R1642	ERJ8GCYJ104	FILM	0.125W	5%	100KΩ
R1643	ERJ8GCYJ470	FILM	0.125W	5%	47Ω
R1646	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1648	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1657	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R1662	ERJ8GCYJ220	FILM	0.125W	5%	22Ω
R1663	ERJ8GCYJ220	FILM	0.125W	5%	22Ω
R1664	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R1665	ERJ8GCYJ220	FILM	0.125W	5%	22Ω
R1675	ERJ8GCY0R00	WIRE LINK			
R1678	ERJ8GCYJ103	FILM	0.125W	5%	10KΩ
R1683	ERJ8GCYJ331	FILM	0.125W	5%	330Ω
R1684	ERJ8GCYJ680	FILM	0.125W	5%	68Ω
R1685	ERJ8GCY0R00	WIRE LINK			
R1686	ERJ8GCYJ680	FILM	0.125W	5%	68Ω
R1687	ERJ8GCYJ221	FILM	0.125W	5%	220Ω
R1701	ERJ8GCYJ103	FILM	0.125W	5%	10KΩ
R1702	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1706	ERJ8GCYJ104	FILM	0.125W	5%	100KΩ
R1707	ERJ8GCYJ103	FILM	0.125W	5%	10KΩ
R1708	ERJ8GCYJ104	FILM	0.125W	5%	100KΩ
R1709	ERJ8GCYJ473	FILM	0.125W	5%	47KΩ
R1722	ERJ8GCYJ103	FILM	0.125W	5%	10KΩ
R1723	ERJ8GCYJ103	FILM	0.125W	5%	10KΩ
R1724	ERJ8GCYJ153	FILM	0.125W	5%	15KΩ
R1728	ERJ8GCYJ103	FILM	0.125W	5%	10KΩ
R1729	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R1731	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R1764	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R1772	ERJ8GCYJ750	FILM	0.125W	5%	75Ω
R1774	ERJ8GCYJ750	FILM	0.125W	5%	75Ω
R1777	ERJ8GCYJ750	FILM	0.125W	5%	75Ω
R1779	ERJ8GCYJ750	FILM	0.125W	5%	75Ω
R1780	ERJ8GCYJ103	FILM	0.125W	5%	10KΩ
R1781	ERJ8GCY0R00	WIRE LINK			
R1783	ERJ8GCYJ471	FILM	0.125W	5%	470Ω
R1784	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ

Ref No.	Part No.	Description			
R1791	ERJ8GCYJ272	FILM	0.125W	5%	2K7Ω
R1792	ERJ8GCYJ272	FILM	0.125W	5%	2K7Ω
R1793	ERJ8GCYJ272	FILM	0.125W	5%	2K7Ω
R1806	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R1807	ERJ8GCYJ222	FILM	0.125W	5%	2K2Ω
R1808	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R1809	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1811	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R1812	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1815	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R1816	ERJ8GCYJ473	FILM	0.125W	5%	47KΩ
R1821	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R1822	ERJ8GCYJ392	FILM	0.125W	5%	3K9Ω
R1823	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1824	ERJ8GCYJ473	FILM	0.125W	5%	47KΩ
R1825	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R1826	ERJ8GCYJ563	FILM	0.125W	5%	56KΩ
R1827	ERJ8GCTJ393V	FILM	0.125W	5%	39KΩ
R1828	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1829	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R1831	ERJ8GCYJ392	FILM	0.125W	5%	3K9Ω
R1832	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1834	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1835	ERJ8GCYJ103	FILM	0.125W	5%	10KΩ
R1837	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1838	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R1839	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1841	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R1842	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1843	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R1844	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1846	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R1847	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1849	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1850	ERJ8GCYJ471	FILM	0.125W	5%	470Ω
R1857	ERJ8GCYJ683	FILM	0.125W	5%	68KΩ
R1858	ERJ8GCYJ393	FILM	0.125W	5%	39KΩ
R1859	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R1860	ERJ8GCYJ221	FILM	0.125W	5%	220Ω
R1861	ERJ8GCYJ272	FILM	0.125W	5%	2K7Ω
R1862	ERJ8GCYJ272	FILM	0.125W	5%	2K7Ω
R1863	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1866	ERJ8GCYJ272	FILM	0.125W	5%	2K7Ω
R1881	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1882	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1884	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1885	ERJ8GCYJ100	FILM	0.125W	5%	10Ω
R1886	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1887	ERJ8GCYJ100	FILM	0.125W	5%	10Ω
R1888	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1889	ERJ8GCYJ100	FILM	0.125W	5%	10Ω
R1891	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1892	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1893	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1894	ERJ8GCYJ562	FILM	0.125W	5%	5K6Ω
R1896	ERJ8GCYJ332	FILM	0.125W	5%	3K3Ω
R1897	ERJ8GCYJ562	FILM	0.125W	5%	5K6Ω
R1898	ERJ8GCYJ103	FILM	0.125W	5%	10KΩ
R1899	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R1906	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1921	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R1922	ERJ8GCYJ331	FILM	0.125W	5%	330Ω
R1923	ERJ8GCYJ222	FILM	0.125W	5%	2K2Ω
R1925	ERJ8GCYJ331	FILM	0.125W	5%	330Ω
R1941	ERJ8GCYJ100	FILM	0.125W	5%	10Ω
R1961	ERJ8GCYJ332	FILM	0.125W	5%	3K3Ω
R1962	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R1963	ERJ8GCYJ153	FILM	0.125W	5%	15KΩ
R1964	ERJ8GCYJ103	FILM	0.125W	5%	10KΩ
R1966	ERJ8GCYJ471	FILM	0.125W	5%	470Ω
R1967	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R1968	ERJ8GCYJ470	FILM	0.125W	5%	47Ω
R1969	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R3101	ERJ8GCYJ562	FILM	0.125W	5%	5K6Ω
R3102	ERJ8GCYJ562	FILM	0.125W	5%	5K6Ω
R3103	ERJ8GCYJ562	FILM	0.125W	5%	5K6Ω
R3104	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R3106	ERJ8GCYJ563	FILM	0.125W	5%	56KΩ
R3107	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R3108	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R3109	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R3111	ERJ8GCYJ222	FILM	0.125W	5%	2K2Ω

Ref No.	Part No.	Description			
R3112	ERJ8GCYJ152	FILM	0.125W	5%	1K5Ω
R3113	ERJ8GCYJ152	FILM	0.125W	5%	1K5Ω
R3121	ERJ8GCYJ273	FILM	0.125W	5%	27KΩ
R3122	ERJ8GCYJ222	FILM	0.125W	5%	2K2Ω
R3123	ERJ8GCYJ471	FILM	0.125W	5%	470Ω
R3124	ERJ8GCYJ681	FILM	0.125W	5%	680Ω
R3126	ERJ8GCYJ122	FILM	0.125W	5%	1K2Ω
R3127	ERQ14AJ100	METAL	0.25W	5%	10Ω ⚠
R3128	ERQ14AJ820	METAL	0.25W	5%	82Ω ⚠
R3129	ERQ14AJ820	METAL	0.25W	5%	82Ω ⚠
R3130	ERJ8GCYJ100	FILM	0.125W	5%	10Ω
R3131	ERD25TJ563	CARBON	0.25W	5%	56KΩ
R3132	ERD25TJ122	CARBON	0.25W	5%	1K2Ω
R3133	ERD25TJ2R7	CARBON	0.25W	5%	2R7Ω
R3134	ERDS1FYJ390	CARBON	0.5W	5%	39Ω ⚠
R3135	ERJ8GCYJ100	FILM	0.125W	5%	10Ω
R3136	ERD25TJ563	CARBON	0.25W	5%	56KΩ
R3137	ERD25TJ122	CARBON	0.25W	5%	1K2Ω
R3138	ERD25TJ2R7	CARBON	0.25W	5%	2R7Ω
R3139	ERDS1FYJ390	CARBON	0.5W	5%	39Ω ⚠
R3141	ERDS1FYJ101	CARBON	0.5W	5%	100Ω ⚠
R3142	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R3143	ERJ8GCYJ222	FILM	0.125W	5%	2K2Ω
R3144	ERJ8GCYJ681	FILM	0.125W	5%	680Ω
R3146	ERDS1FYJ471	CARBON	0.5W	5%	470Ω ⚠
R3151	ERQ14AJ3R9	FUSIBLE	0.25W	5%	3.9Ω ⚠
R3152	ERQ12HJ102	METAL	0.5W	5%	1KΩ ⚠
R3153	ERQ14AJ3R9	FUSIBLE	0.25W	5%	3.9Ω ⚠
R3160	ERJ8GCYJ100	FILM	0.125W	5%	10Ω
R3161	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R3162	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R3163	ERJ8GCYJ332	FILM	0.125W	5%	3K3Ω
R3164	ERJ8GCYJ471	FILM	0.125W	5%	470Ω
R3166	ERJ8GCYJ471	FILM	0.125W	5%	470Ω
R3167	ERJ8GCYJ471	FILM	0.125W	5%	470Ω
R3168	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R3169	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R3170	ERJ8GCYJ100	FILM	0.125W	5%	10Ω
R3171	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R3172	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R3173	ERJ8GCYJ332	FILM	0.125W	5%	3K3Ω
R3174	ERJ8GCYJ471	FILM	0.125W	5%	470Ω
R3176	ERJ8GCYJ471	FILM	0.125W	5%	470Ω
R3177	ERJ8GCYJ471	FILM	0.125W	5%	470Ω
R3178	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R3179	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R3180	ERJ8GCYJ100	FILM	0.125W	5%	10Ω
R3181	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R3182	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R3183	ERJ8GCYJ332	FILM	0.125W	5%	3K3Ω
R3184	ERJ8GCYJ471	FILM	0.125W	5%	470Ω
R3186	ERJ8GCYJ471	FILM	0.125W	5%	470Ω
R3187	ERJ8GCYJ471	FILM	0.125W	5%	470Ω
R3188	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R3189	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R3307	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R3308	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R3309	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R3352	ERJ8GCYJ273	FILM	0.125W	5%	27KΩ
R3353	ERJ8GCYJ100	FILM	0.125W	5%	10Ω
R3356	ERJ8GCYJ103	FILM	0.125W	5%	10KΩ
R3358	ERJ8GCYJ100	FILM	0.125W	5%	10Ω
R3359	ERJ8GCYJ472	FILM	0.125W	5%	4K7Ω
R3365	ERJ8GCYJ220	FILM	0.125W	5%	22Ω
R3366	ERQ12HJ101	FUSIBLE	0.5W	5%	100Ω ⚠
R3367	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R3368	ERJ8GCYJ103	FILM	0.125W	5%	10KΩ
R3369	ERJ8GCYJ682	FILM	0.125W	5%	6K8Ω
R3370	ERJ8GCYJ100	FILM	0.125W	5%	10Ω
R3371	ERJ8GCYJ272	FILM	0.125W	5%	2K7Ω
R3372	ERJ8GCYJ392	FILM	0.125W	5%	3K9Ω
R3373	ERJ8GCYJ152	FILM	0.125W	5%	1K5Ω
R3374	ERDS1TJ104	CARBON	0.5W	5%	100KΩ
R3376	ERD25TJ561	CARBON	0.25W	5%	560Ω
R3377	ERJ8GCYJ272	FILM	0.125W	5%	2K7Ω
R3379	ERD25TJ103	CARBON	0.25W	5%	10KΩ
R3380	ERJ8GCYJ100	FILM	0.125W	5%	10Ω
R3381	ERJ8GCYJ272	FILM	0.125W	5%	2K7Ω
R3382	ERJ8GCYJ392	FILM	0.125W	5%	3K9Ω
R3383	ERJ8GCYJ152	FILM	0.125W	5%	1K5Ω
R3384	ERDS1TJ104	CARBON	0.5W	5%	100KΩ
R3386	ERD25TJ561	CARBON	0.25W	5%	560Ω

Ref No.	Part No.	Description			
R3387	ERJ8GCYJ562	FILM	0.125W	5%	5K6Ω
R3389	ERD25TJ103	CARBON	0.25W	5%	10KΩ
R3390	ERJ8GCYJ100	FILM	0.125W	5%	10Ω
R3391	ERJ8GCYJ272	FILM	0.125W	5%	2K7Ω
R3392	ERJ8GCYJ392	FILM	0.125W	5%	3K9Ω
R3393	ERJ8GCYJ152	FILM	0.125W	5%	1K5Ω
R3394	ERDS1TJ104	CARBON	0.5W	5%	100KΩ
R3396	ERD25TJ561	CARBON	0.25W	5%	560Ω
R3397	ERJ8GCYJ562	FILM	0.125W	5%	5K6Ω
R3399	ERD25TJ103	CARBON	0.25W	5%	10KΩ
R4501	ERJ8GCYJ331	FILM	0.125W	5%	330Ω
R4502	ERJ8GCYJ333	FILM	0.125W	5%	33KΩ
R4503	ERJ8GCYJ331	FILM	0.125W	5%	330Ω
R4504	ERJ8GCYJ333	FILM	0.125W	5%	33KΩ
R4506	ERJ8GCYJ333	FILM	0.125W	5%	33KΩ
R4507	ERJ6GMYJ472	S.M. CARB	0.1W	5%	4K7Ω
R4549	ERJ8GCY0R00	WIRE LINK			
R4552	ERJ8GCYJ100	FILM	0.125W	5%	10Ω
R4553	ERJ8GCYJ103	FILM	0.125W	5%	10KΩ
R4554	ERJ6GMY0R00	S.M. WIRE LINK			
R4555	ERJ6GMY0R00	S.M. WIRE LINK			
R4556	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R4557	ERJ6GMYJ333	S.M. CARB	0.1W	5%	33KΩ
R4558	ERJ8GCYJ103	FILM	0.125W	5%	10KΩ
R4560	ERJ8GCYJ563	FILM	0.125W	5%	56KΩ
R4709	ERJ8GCYJ223	FILM	0.125W	5%	22KΩ
R4711	ERJ8GCYJ224	FILM	0.125W	5%	220KΩ
R4721	ERJ6GMYJ222	S.M. CARB	0.1W	5%	2K2Ω
R4722	ERJ6GMYJ123	S.M. CARB	0.1W	5%	12KΩ
R4723	ERJ6GMYJ221	S.M. CARB	0.1W	5%	220Ω
R4724	ERJ6GMYJ680	S.M. CARB	0.1W	5%	68Ω
R4726	ERJ8GCYJ123	FILM	0.125W	5%	12KΩ
R4727	ERJ8GCYJ181	FILM	0.125W	5%	180Ω
R4733	ERJ6GMYJ103	S.M. CARB	0.1W	5%	10KΩ
R4808	ERJ6GMYJ471	S.M. CARB	0.1W	5%	470Ω
R4809	ERJ6GMYJ821	S.M. CARB	0.1W	5%	820Ω
R4812	ERJ8GCYJ104	FILM	0.125W	5%	100KΩ
R4813	ERJ8GCYJ104	FILM	0.125W	5%	100KΩ
R4814	ERJ6GMYJ222	S.M. CARB	0.1W	5%	2K2Ω
R4818	ERJ8GCYJ150	FILM	0.125W	5%	15Ω
R4823	ERJ6GMYJ103	S.M. CARB	0.1W	5%	10KΩ
R4837	ERJ8GCYJ103	FILM	0.125W	5%	10KΩ
R4839	ERJ8GCYJ103	FILM	0.125W	5%	10KΩ
R4841	ERJ8GCYJ561	FILM	0.125W	5%	560Ω
R4842	ERJ6GMYJ561	S.M. CARB	0.1W	5%	560Ω
R4843	ERJ6GMYJ821	S.M. CARB	0.1W	5%	820Ω
R4848	ERJ8GCY0R00	WIRE LINK			
R4879	ERJ8GCY0R00	WIRE LINK			
R4891	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R4892	ERJ6GMYJ123	S.M. CARB	0.1W	5%	12KΩ
R4893	ERJ6GMYJ471	S.M. CARB	0.1W	5%	470Ω
R4894	ERJ6GMYJ471	S.M. CARB	0.1W	5%	470Ω
R4895	ERJ6GMYJ474	S.M. CARB	0.1W	5%	470KΩ
R4896	ERJ8GCYJ474	FILM	0.125W	5%	470KΩ
R6101	ERC12ZGK824	CARBON	0.5W	10%	820KΩ
R6102	232266296009	DIODE			
R6301	ERJ8GCYJ101	FILM	0.125W	5%	100Ω
R6302	ERJ8GCYJ102	FILM	0.125W	5%	1KΩ
R6303	ERJ8GCYJ103	FILM	0.125W	5%	10KΩ
R6311	ERJ8GCY0R00	WIRE LINK			
R6312	ERJ8GCY0R00	WIRE LINK			
R6313	ERJ8GCY0R00	WIRE LINK			
R6315	ERJ8GCY0R00	WIRE LINK			
R6316	ERJ8GCY0R00	WIRE LINK			
R6317	ERJ8GCY0R00	WIRE LINK			
R6318	ERJ8GCY0R00	WIRE LINK			
R6319	ERJ8GCY0R00	WIRE LINK			
R6320	ERJ8GCY0R00	WIRE LINK			
R6407	ERG2SJ471	FILM	2W	5%	470Ω
R6408	ERG2SJ471	FILM	2W	5%	470Ω
R6409	ERDS1TJ151	CARBON	0.5W	5%	150Ω
R6410	ERDS1TJ151	CARBON	0.5W	5%	150Ω
P633	EVND4AA00B53	155V ADJUST			5KΩ
P1227	EVND4AA00B12	VIDEO ADJUST			100Ω
P3362	RH0921D	SCREEN ADJUST			4K7Ω
P3368	EVN65UA00B24	CUTOFF			20KΩ
P4703	EVND4AA00B24	AGC ADJUST			20KΩ

SWITCHES

S570	EVQR4AL13	SWITCH

Ref No.	Part No.	Description
S6101	ESB99902V	SWITCH ⚠
S6301	EVQPFC04R	SWITCH
S6302	EVQPFC04R	SWITCH
S6303	EVQPFC04R	SWITCH
S6304	EVQPFC04R	SWITCH
S6305	EVQPFC04R	SWITCH
S6306	EVQPFC04R	SWITCH
S6307	EVQPFC04R	SWITCH
S6308	EVQPFC04R	SWITCH
S6309	EVQPFC04R	SWITCH

TRANSFORMERS

T528	5270103200	TRANSFORMER
T531	TLF15566F	FLYBACK TRANSFORMER ⚠
T639	5451708900	TRANSFORMER ⚠

CRYSTALS

X1654	TSS4005-B	CRYSTAL
X1656	TSS4006-B	CRYSTAL
X1853	TSS4007-B	CRYSTAL
X4701	EFCS5M7MW3	FILTER
X4704	G3258	CRYSTAL
X4836	EFCS5R5MS5	FILTER
X4837	EFCS5R5MS5	FILTER
X4839	EFCS6R5MS5	FILTER
X4841	EFCS5R74MS5A	FILTER

SERVICE AIDS

TZS2EK002 MEMORY PACK
TZS2EK004 SERVICE REMOTE
TZS2EK005 TOOL KIT
TZS2EK022 SPRAKER PLUGS
TZS2EK025 EXTENSION LEAD KIT
TZS2EK029 PARTS KIT

Ref No.	Part No.	Description